



www.aidsmap.com

hiv & women

third edition 2007



acknowledgments

Revised by Rob Dawson Third edition 2007

NAM is a charity that publishes information for people affected by HIV and those working with them. We believe information helps people to make decisions about, and be in control of, their lives, health and treatment options.

Thanks for the assistance of

Dr Fiona Boag
Consultant Physician,
Chelsea and Westminster
Hospital, London

Susan Cole
UK Coalition of People Living
with HIV and AIDS, London

Prof. Janet Darbyshire,
Director, MRC Clinical Trials
Unit, London

Prof. Frances Gotch
Imperial College, London

Dr Hermione Lyall
Consultant Paediatrician,
St Mary's Hospital, London

Georgina Caswell,
African HIV Policy Network, London

Funders

NAM is grateful to the funders of this booklet series:

Department of Health, NHS London
HIV & GUM Commissioning
Consortium, Healthsure Charitable
Trust and Derek Butler Trust.



www.aidsmap.com

hiv & women

This booklet is intended to answer some of the most commonly asked questions about HIV infection in women. It outlines how HIV affects women and the effectiveness of anti-HIV treatment in women. Information on HIV and pregnancy is also included. The booklet also provides information on the day-to-day issues involved in living with HIV.

This booklet has been written to help you decide what questions to ask your doctor. It is not intended to replace discussion with your doctor about your treatment.



HIV and women

1

HIV and women's health

2

Monitoring HIV in women

3

HIV & your body

4

- **Periods**
- **Menopause**

■ **Reproductive health issues**

contents

Mother-to-baby transmission of HIV

11

- In good health?
- High viral load?
- Already on treatment?
- Diagnosed late in pregnancy?
- Diagnosed during delivery or afterwards?
- Safety of treatment to prevent mother-to-baby transmission
- Preventing mother-to-baby transmission - delivery
- Preventing mother-to-baby transmission - breastfeeding

Pregnancy and conception

19

- Planning to get pregnant when you have HIV
- Contraception

Anti-HIV treatment in women

23

■ **Effectiveness of treatment
in women**

■ **Side-effects of HIV treatment
in women**

Specialist support

26

Summary

28

Glossary

29

Today, more women than men are infected with HIV worldwide.

It's now known that:

- HIV causes immune damage in women at the same rate as it does in men.
- Women and men are equally likely to develop AIDS.
- Some key tests used to monitor the effects of HIV on the immune system need to be interpreted differently in women and men.
- HIV can affect a woman's menstrual cycle and reproductive health.
- Cervical cancer is an AIDS-defining illness and all HIV-positive women should have regular PAP smears.
- An HIV-positive woman can pass HIV onto her baby but this can be prevented in nearly all cases.
- Women who breastfeed when they are ill with HIV/AIDS may have an increased risk of dying, although more research is needed to confirm this.
- Anti-HIV drugs work just as well in women as men, but the side-effects of some drugs may be different.

This booklet provides information on all of these issues, and also includes some general information on living with HIV.

2 HIV and women's health

Without treatment, nearly all HIV-positive women will experience a gradual weakening of their immune systems and, over time, will have such a weak immune system that they will be vulnerable to the severe infections and cancers that define AIDS.

To prevent this, it is recommended that everybody who is HIV-positive receives regular medical monitoring.

Monitoring HIV in women

3

Two bloods tests are of crucial importance in monitoring HIV. These are CD4 cell counts (to monitor your immune system) and HIV viral load tests (to monitor the levels of virus in the blood). The booklet *Viral load & CD4* in this series provides more information on these tests.

CD4 cell counts tend to be higher in HIV-positive women rather than HIV-positive men.

Your CD4 cell count may go up or down with your menstrual cycle. The oral contraceptive pill may also lower your CD4 cell count, but not to such an extent that your health may be at risk. Pregnancy can lower your CD4 cell count too; this is

due to the effect of having a larger blood volume when pregnant and after the baby is born, the CD4 count usually goes back to the same level as before.

Your viral load may be lower than a man's shortly after you are first infected with HIV, but this does not have any effect on the speed of HIV progression.

4 HIV and your body

Periods

As well as affecting your immune system, HIV may also cause menstrual problems. You are more likely to experience menstrual changes if you have a low CD4 cell count and/or high viral load or if you use (or have used) illegal drugs.

Some of the menstrual changes you may experience include:

- Long intervals between periods.
- Missed periods without pregnancy.

It's thought that these changes can occur because the damage HIV is causing to your immune system can alter your hormone balance. If you have been ill,

have lost a lot of weight, or have anaemia, you may also find that these cause changes to your menstrual cycle.

Make sure that you tell your doctor if you notice any changes to your periods. It could be a warning sign that HIV is damaging your immune system and that you need to consider taking anti-HIV treatment (antiretroviral therapy).

Changes in your menstrual cycle can also be a symptom of health problems. But remember that a missed period might also mean that you are pregnant.

Abnormal bleeding (for example after sex) after the menopause, or very heavy periods

should also be reported to your doctor. Heavy periods can be caused by several factors, including fibroids (growths that develop from the smooth muscle layer of the uterus). If left untreated, the blood loss from heavy periods could lead to anaemia.

Menopause

It's thought that HIV can interfere with your body's ability to produce the hormones oestrogen and progesterone. This may lead to an early menopause (the ending of the ability to become pregnant), particularly if your CD4 cell counts are low.

Symptoms of the menopause include:

- Less frequent periods, which then stop completely.
- A dry vagina and vulva.
- Hot flushes.
- Reduced, or lack of, sexual desire.
- Depression and other mood problems.
- Sleep problems.
- Aging skin, dry skin or spotty skin.
- Increased frequency of urination (occurring over the long term).

6

Weakening of the bones (osteoporosis) can be a long-term complication associated with the menopause. This can be of particular concern as HIV-positive individuals tend to have lower bone mineral density than people who are not HIV-infected. This could be due to several factors such as the inflammatory effects of HIV, disrupted hormone production, increased levels of cigarette smoking and drug use seen in people with HIV, or the effects of some anti-HIV drugs. These factors place menopausal, HIV-infected women at an even higher risk of low bone mineral density (osteopenia) than comparable HIV-negative women.

It is recommended that HIV-positive women entering the menopause should be screened for bone weakness. Calcium and vitamin D therapy may be required if early problems are detected.

You can help look after the health of your bones by light weight training, by losing weight if you are overweight, and by making sure that you don't drink too much alcohol.

Some women take hormone supplements to replace those they are losing naturally. This is called hormone replacement therapy (HRT) or oestrogen replacement therapy (ERT) and can relieve the symptoms of the menopause. HRT can

have many complications and long-term risks include heart disease, stroke, and breast cancer, and it is only recommended to relieve menopausal symptoms or for premature menopause.

HRT can also be effective if you are HIV-positive but there might be other risks involved. This is particularly the case if you are taking antiretroviral therapy, as some of these drugs have been associated with an increased risk of heart disease and stroke.

If you are thinking about HRT, then talk it over with your doctor. You might also want to ask for a referral to a specialist menopause clinic.

Reproductive health issues

Certain reproductive health (gynaecological) problems occur more frequently in women with HIV. These include recurrent vaginal yeast infections (thrush/candida) and severe pelvic inflammatory disease. While these can occur in all women, they can be more common, more severe, or harder to treat if you have HIV. Some studies also suggest a small increase in the risk of cervical cancer developing in HIV-positive women. This small risk increase in HIV-positive women has been known since effective antiretroviral treatment became available and is likely to be linked to the fact that women with HIV are now living longer.

Anti-HIV drugs do not cause cervical cancer.

Pelvic inflammatory disease (PID) is always a serious condition, particularly so if you have HIV. While it can be treated with antibiotics, there is a risk of long-term pain and the recurrence of the condition. PID can also result in infertility. It can be caused by untreated sexually transmitted infections such as gonorrhoea and Chlamydia, as well as other bacteria and infections such as tuberculosis. Symptoms include pain in the lower abdomen, vaginal discharge, cramping during sex, deep internal pain, fever, vomiting, tiredness and unusual bleeding from the vagina. A general sexual health

check-up will include tests to see if you have gonorrhoea or Chlamydia. Scans may be needed to see if you have any cysts or abscesses that indicate that you have PID. An examination called a laparoscopy, which involves having a tiny camera put into the pelvic cavity through a small surgical cut below the navel, maybe used if you have complicated PID. If you have PID you will be treated with a combination of antibiotics. If it becomes severe, you might need to be admitted to hospital and have treatment with intravenous antibiotics.

Your sexual partners will need to have a sexual health screen before you have sex

again, so that they can have any infections diagnosed and treated.

HIV-positive women may be more likely to have abnormal cervical cells caused by human papilloma virus (HPV) which can lead to cervical cancer. It's very important that you have regular cervical PAP smear tests to check for these cells so that you can receive prompt treatment to remove them. HIV-positive women are much less likely than HIV-negative women to naturally clear HPV infection. All HIV-positive women should have a PAP smear soon after they are diagnosed with HIV, again after six months and then every year. Treatment for abnormal cervical cells

is highly effective, provided such cells are detected early.

Attacks of genital herpes (herpes simplex virus-2, or HSV-2) can last longer and be more painful if you have HIV. The antiviral drug aciclovir can help shorten the duration of attacks, and if you are getting regular attacks of herpes then you may wish to consider taking aciclovir every day to prevent this.

Although there is an increased risk of fungal infections if you are HIV-positive, such as vaginal candidiasis (thrush), a yeast infection, treatment works just as well.

Bacterial vaginosis is an overgrowth of bacteria in the vagina that occurs in many women, regardless of their HIV status. It can increase the risk of mother-to-baby transmission of HIV. Its symptoms include a discharge which has a "fishy" odour. It can be treated with antibiotics. Using scented or strong soaps on the genital area should be avoided to prevent irritation. Excessive washing of the vagina (douching) increases your risk of developing bacterial vaginosis.

This information is also included in the booklet *HIV and children* in this series.

If you are HIV-positive and pregnant, or thinking about having a baby, it is important to know that you can pass on HIV to your baby during pregnancy, or during delivery, or by breastfeeding.

However, anti-HIV treatment can greatly reduce the risk of you passing on HIV infection to your baby. In addition, if the mother's HIV viral load is detectable late in pregnancy, doctors will advise delivery through an operation (a caesarean birth) as this can further reduce the risk.

Exclusive formula feeding is strongly recommended for all babies born to

HIV-positive mothers in the UK.

A number of factors may make it more likely that you will pass on HIV to your baby. These include:

During pregnancy

- Being ill because of HIV.
- Having a high HIV viral load or a low CD4 cell count.
- If you used recreational drugs, particularly injected drugs.

During delivery

- Your waters breaking four or more hours before delivery.

- Having an untreated sexually transmitted infection when you give birth.
- If you have a vaginal delivery (rather than a caesarean delivery) when you have a detectable viral load.
- If you have a difficult delivery, for example forceps need to be used.
- If you have a premature baby.

After delivery

- If you breastfeed, you can pass HIV onto your baby through breast milk.

There are two different ways in which anti-HIV treatment can reduce the risk of you passing on HIV to your baby:

First, anti-HIV treatment reduces your viral load - the level of virus in your blood - so that your baby is exposed to less of the virus while in the womb and during childbirth. The aim of the HIV treatment is to get your viral load below 50 copies/ml. This is often referred to as an undetectable viral load.

Second, some anti-HIV drugs can also cross the placenta and enter your baby's body where they can prevent the virus from ever taking hold. This is also why newborn babies are given a short course of anti-HIV drugs called PEP (post-exposure prophylaxis) after they have been born, if their mother is HIV-positive.

Two drugs in particular have proven to be very effective at crossing the placenta and preventing a mother from passing on HIV to her baby. These are the nucleoside analogue (NRTI) AZT (*Retrovir*), and the non-nucleoside analogue (NNRTI) nevirapine (*Viramune*). The way in which these drugs are used (either AZT on its own, or AZT or nevirapine in combination with other anti-HIV drugs) will depend on how much damage HIV has done to your immune system, and at which point in your pregnancy HIV was diagnosed.

In the UK, and other countries where there is access to a full range of anti-HIV drugs for treatment, nevirapine should not be

used by itself (in monotherapy) to prevent mother-to-baby transmission of HIV because resistance to the drug can easily develop if it is used in this way. Using this drug alone would limit your ability to benefit from it or related drugs in the future, should you need them to protect your own health.

In good health?

If you have a good CD4 cell count, low HIV viral load and are not ill because of HIV infection, the UK guidelines recommend that you start taking AZT in the final three months (third trimester) of your pregnancy. You will also need to take

an intravenous injection of AZT during delivery and have a caesarean, rather than vaginal, delivery. Another option is to take a short course of combination antiretroviral therapy during the last few months of pregnancy in order to get your viral load down to below 50 copies/ml. You may then have the option of a planned vaginal delivery.

Your baby will receive treatment with AZT syrup for four weeks after she/she is born.

If you are in good health at the beginning of your pregnancy but become ill because of HIV later in your pregnancy and have to start taking antiretroviral therapy, then

the aim should be to get your viral load undetectable. You should continue to take the anti-HIV treatment after your baby has been delivered.

Your baby will receive treatment with AZT syrup for four weeks after he/she is born.

High viral load?

If HIV has significantly damaged your immune system, or if you have a high viral load, then you are advised to take antiretroviral therapy, including two drugs from the nucleoside analogue class (NRTIs), ideally AZT and 3TC (lamivudine, *Epivir*), and either the non-nucleoside analogue (NNRTI)

nevirapine or a protease inhibitor. The higher your viral load, the earlier during your pregnancy you will need to start taking treatment. If you still have a detectable viral load before giving birth, then you need to have a caesarean delivery, but if your viral load is below 50 copies/ml and there are no apparent problems with the pregnancy, you may be able to have a planned vaginal birth.

Your baby will receive treatment with AZT syrup for four weeks after he/she is born.

Already on treatment?

If you become pregnant whilst taking effective antiretroviral therapy, you are

recommended to continue taking this treatment. You will need to have a special anomaly scan between weeks 18 - 20 of your pregnancy to check for any abnormalities in your baby's development.

Your baby will receive treatment with antiretroviral syrup (usually AZT) for four weeks after he/she is born.

If you become pregnant whilst taking antiretroviral therapy and your anti-HIV drugs are not suppressing your viral load to undetectable, then you should have a resistance test to determine your best drug options and then change to these anti-HIV drugs. The aim should be to get your viral

load undetectable by the time you deliver. You will need to have an anomaly scan between weeks 18 - 20.

Your baby will receive treatment with an antiretroviral syrup (to which your virus is not resistant) for four weeks after he/she is born.

Diagnosed late in pregnancy?

If you are diagnosed with HIV very late during pregnancy (32 weeks or later), then you will need to start taking antiretroviral therapy immediately. A blood test will be used to determine any resistance you have to anti retroviral therapy. The most common drugs used in this situation are

AZT, 3TC and nevirapine, as these drugs are able to rapidly pass over the placenta into your baby's body.

Your baby will usually receive treatment with the same combination of three drugs (AZT, 3TC, and nevirapine) as syrups for four weeks after he/she is born.

Diagnosed during delivery or afterwards?

If you are diagnosed HIV-positive during delivery, or just after, then you will usually be given a dose of AZT by injection and oral doses of 3TC and nevirapine. Your baby will also need to take a triple combination of anti-HIV drugs for four weeks.

Safety of treatment to prevent mother-to-baby transmission

There's some evidence of a slightly increased risk of having a premature, or low birth-weight baby if the mother takes anti-HIV drugs during pregnancy, particularly if the mother takes a protease inhibitor. However this is a controversial issue and other evidence suggests that taking anti-HIV drugs does not cause premature delivery.

Preventing mother-to-baby transmission - delivery

The risk of your baby contracting HIV is reduced if you have a planned surgical

delivery. This is called an 'elective caesarean' and is scheduled to take place for the 38th week of pregnancy. If your labour begins early, the surgical delivery will be performed sooner. Taking anti-HIV drugs during caesarean delivery reduces the risk of you passing on HIV to your baby to very low levels. However, as with all surgery, caesarean delivery carries some risks. These risks should be explained to you before you agree (give consent) to the procedure.

You are strongly recommended to have a caesarean delivery if you have a detectable viral load, or if the only anti-HIV drug you took during pregnancy was AZT.

If your viral load has been consistently below 50 copies/ml, then you may be able to have an actively managed vaginal birth. This means that your doctors and midwife will make sure that your labour doesn't last too long and can take other steps to reduce the risk of you passing on HIV to your baby.

Preventing mother-to-baby transmission - breastfeeding

Breastfeeding carries a risk of you passing on HIV to your baby. The risk of transmission can be as high as one in eight, depending on your own state of health, how long breastfeeding continues,

and whether the baby receives any food or water in addition to breast milk. In the UK and other countries where safe alternatives to breastfeeding are available, you are strongly recommended to feed your baby with formula milk from birth. Detailed advice and support on how to do this is available from medical services and you should ask for help if you have difficulty meeting the cost.

The positive impact which anti-HIV therapy has had on the health of many people with HIV, and the availability of effective means of reducing the rate of mother-to-child HIV transmission, may have encouraged some HIV-positive women to reconsider decisions about sex and relationships, and about having children. If you would like support thinking through these issues, it may be helpful to see a counsellor, or to talk to other HIV-positive women. One option is Positively Women, a national organisation providing peer support to HIV-positive women and their children (tel 020 7713 0444). Another option is Body and Soul, a

self-help organisation which supports women, heterosexual men, children and families living with or affected by HIV (tel 020 7383 7678). Alternatively, try calling THT Direct on 0845 12 21 200 - they'll be able to tell you what services are available near you.

In the UK, HIV treatment centres and sexually transmitted infections (GUM) clinics offer condoms free of charge. The National Health Service (NHS) provides free access to contraception, that is, you do not need to pay a prescription charge. Contraception is available from General Practitioners (GPs), and from Family Planning Clinics. Details of local Family

Planning Clinics are available from NHS Direct (tel 0845 46 47). If a condom breaks during sex, emergency contraception is available to buy from chemists. You may also be able to obtain free emergency contraception from a GP, GUM clinic or the Accident and Emergency department (A&E) of your local hospital. If your partner is HIV-negative and a condom breaks during sex, they should visit a GUM clinic or A&E department within 72 hours where they may be prescribed Post-exposure prophylaxis (PEP), a short course of anti-HIV drugs which may be able to prevent them from becoming infected.

You cannot join a clinical trial looking at the effectiveness of new HIV drugs if you are pregnant or thinking of becoming pregnant. See the booklet *Clinical trials* in this series for more information.

Planning to get pregnant when you have HIV

If you are pregnant, or planning pregnancy, it's very important that you tell your doctor so that they can help you reduce the risk of your baby being infected with HIV and ensure your drugs are the best ones for pregnancy. Folic Acid supplements and a healthy lifestyle will be recommended.

Becoming pregnant where one partner has HIV will require 'alternative' methods if the negative partner is to be protected from infection. An HIV-positive woman with an HIV-negative male partner may choose to conceive using an insemination method that introduces the semen into her vagina without intercourse, e.g. via injection (most family clinics can supply kits to help with this). An HIV-negative woman with an HIV-positive male partner may wish to pursue a technique known as 'sperm washing' which separates the sperm from the seminal fluid, which is where the virus is found. The 'washed' sperm can then be injected into the woman when she is

ovulating. Currently, sperm washing is not widely available in the UK and individuals often have to pay for this service. Involving your doctor and healthcare team in your plans is likely to be very important, particularly if you are taking anti-HIV therapy.

Contraception

Contraceptive choices need to be made on an individual basis. Although condoms are highly effective at preventing pregnancy, the transmission of HIV and most sexually transmitted infections, they have to be used properly to work. You may therefore

wish to consider a back-up form of contraception, in addition to condoms.

Some of the alternatives:

- The Mirena Coil includes hormones that reduce the risk of heavy periods and anaemia and frequently stops periods. Before the coil is fitted, you will be offered a sexual health screen and be given treatment with antibiotics if you have an infection. It can be easily removed if it doesn't suit you. The coil is also used by women with heavy painful periods as an alternative to hysterectomy.

- Protease inhibitors reduce blood levels of the oestrogen component in oral contraceptive pills, so women taking both the contraceptive pill and protease inhibitors will need to use back-up methods of contraception.

A number of other medications (e.g. antibiotics) interact with hormonal contraceptives, so getting advice on drug interactions from your HIV doctor or pharmacist is important. During the period you are taking any antibiotics, and for a week after, you are recommended to use an additional form of contraception.

Effectiveness of treatment in women

Anti-HIV treatment works equally well in women and men. To find out more about specific anti-HIV treatments, see the booklets *Anti-HIV drugs* and *HIV therapy* in this series.

However, you may be more likely than a man to get higher blood levels of some drugs, probably because men tend to weigh more than women and the doses of anti-HIV drugs were decided after clinical trials that involved many more men than women. Gender differences in side-effects may also be due to an interaction between HIV medications and female hormones.

Having higher blood levels of a drug can mean that there's more of it available to fight HIV but, on the downside, it could mean that you might be more likely to get side-effects. For example, higher levels of the protease inhibitor indinavir in women can cause problems in the kidneys. Because of the risk of developing severe liver-related side-effects, women who have a CD4 cell count above 250 should not start treatment with the NNRTI nevirapine.

Side-effects of HIV treatment in women

Women may be more likely to get some other side-effects too, so it's important to discuss these risks with your doctor. Some studies suggest that changes in body shape called lipodystrophy may affect women more than men. It also seems that women are more likely to get unusual fat accumulation in certain parts of the body, such as the breasts, without the fat loss that is often seen in men.

Changes in the levels of fats and sugars in the blood - cholesterol, glucose and triglycerides, increasing the risk of heart

disease and stroke - are also part of lipodystrophy. The risk of heart disease or stroke from hormone replacement therapy (HRT) is increased if you have high cholesterol. If you are considering HRT and are taking antiretroviral therapy, or have high cholesterol, you should carefully consider the risks and make sure that the levels of fats and sugars in your blood monitored regularly.

To find out more, see the booklet called *Lipodystrophy* in this series.

Women also seem to be at a greater risk of lactic acidosis, a rare but potentially fatal problem caused by some HIV treatments. Lactic acidosis is an increased

lactate level (hyperlactemia) that causes muscle problems and liver damage. Moreover, women are also more likely to develop lactic acidosis faster than men. However, the development of this side-effect has been found to be more common in those who used the HIV drugs d4T (stavudine, *Zerit*) or ddI (didanosine, *Videx*), than in those who used other antiretrovirals.

A heightened risk of problems caused by exposure to certain medications in women can also be seen in the rash linked with the drug nevirapine. This increased incidence of rash may possibly warn of an increased risk for liver disease among women taking the drug. Pancreatitis (pancreas damage)

has also been seen in higher rates in women on some anti-HIV drugs. Some studies also suggest a very high risk for diabetes related to HIV therapy for African-American women.

Menstrual changes associated with some protease inhibitors are one example of a side-effect that can affect women but not men.

Because of these risks, women prescribed certain medications may need closer clinical and laboratory monitoring in order to avoid potential problems.

26 Specialist support

Frequently, women with HIV infection have difficulty accessing healthcare and may have the additional burden of caring for children and other family members who may also be HIV-infected. Women often lack social support and can face other challenges like depression, managing a job and a house and alcohol abuse. This can make obtaining or adhering to treatment more difficult. Disclosing your HIV status can also be difficult and it is important to take time to think about the advantages and disadvantages of doing so. It's important to remember that many people tell their partners, family, friends and colleagues about being HIV-positive and receive wonderful support. However, others may

become upset or react badly. In some cases women have been subject to domestic violence when disclosing to their partners. If you have any concerns, organisations such as Positively Women and Body and Soul provide specialist services and support to women with HIV. THT Direct can provide advice on disclosing HIV status if you are concerned about the criminalisation of HIV transmission.

It's important that you get your HIV care from a specialist HIV treatment centre. If you are not already a patient at one and don't know how to find one, then ring one of the helplines listed at the back of this booklet.

Your local HIV agency or council should be able to offer help and advice if you are having problems with housing or money.

The booklet in this series, *Nutrition* provides some information on food, nutrition, exercise and HIV infection, and could be a good place to start if you have questions about any of these issues.

Don't forget your own health needs even if you have responsibilities for looking after others. If you are finding it difficult to cope, ask for help from somebody at your HIV clinic, local HIV organisation, council, or an organisation such as Positively Women.

Your medical records are confidential and nobody can see them without your consent. If you are worried about telling somebody that you have HIV, or are concerned about somebody finding out, then ask for help. The chances are that your HIV clinic, HIV support agency or council social services will be able to offer support.

28 Summary

- HIV can damage the immune systems of women, and without treatment causes illness and death.
- CD4 and viral load tests are the key tests used to monitor HIV in women.
- HIV-positive women should have regular smear tests.
- An HIV-positive woman can pass on HIV to her baby, but this can almost always be prevented.
- Anti-HIV therapy works equally well in women and men.
- Women taking anti-HIV therapy might be more likely to experience some side-effects.

anaemia A shortage or change in the size or function of red blood cells. These cells carry oxygen to cells in the body.

cervix The neck of the womb at the top of the vagina.

CD4 A molecule on the surface of some cells onto which HIV can bind. The CD4 cell count roughly reflects the state of the immune system.

cholesterol A waxy substance, mostly made by the body and used to produce steroid hormones. High levels can be associated with a hardening of the arteries.

hormone A chemical which stimulates or suppresses cell and tissue activity.

lipodystrophy A disruption in the way the body produces, uses and distributes fat.

NNRTI Non-nucleoside reverse transcriptase inhibitor, the family of antiretrovirals which includes efavirenz and nevirapine.

NRTI Nucleoside analogue reverse transcriptase inhibitor. Family of antiretrovirals which includes AZT, ddI, 3TC, d4T, ddC, abacavir and FTC.

PAP smear A specimen of cells from the cervix, usually obtained in scrapings from the opening, which may be examined under the microscope to look for abnormalities.

protease inhibitor Family of antiretrovirals which target the protease enzyme. Includes fosamprenavir, atazanavir, indinavir, lopinaivr, nelfinavir, ritonavir, and saquinavir.

resistance A drug resistant HIV strain is one which is less susceptible to the effects of one or more anti-HIV drugs because of its genotype.

triglycerides The basic "building blocks" from which fats are formed.

undetectable viral load A level of viral load that is too low to be picked up by the particular viral load test being used.

viral load Measurement of the amount of virus in a sample. HIV viral load indicates the extent to which HIV is reproducing in the body.



www.aidsmap.com

keep yourself up to date

get more from nam

NAM's free monthly newsletter. It is written to keep you up to date about the latest news and developments about HIV, help you talk to your doctor, and make decisions about your health and treatment.



HIV Weekly

NAM's new weekly email digest of the latest HIV news. Sign up today for straightforward news reporting and easy to read summaries of the latest HIV research.

To order either of these publications, please use the form on the reverse

Order form

Please set up my free subscription to the following publications

AIDS Treatment Update - NAM's monthly newsletter

Please tick which format you require Paper Email (PDF) Audio Tape

HIV Weekly - NAM's weekly HIV news digest by email

name

address

postcode

email

signature

- Please do not send me information about NAM's full range of publications on HIV and AIDS
- Please tick this box if you would **not** like to receive information about NAM's fundraising campaigns.

NAM is unable to provide free subscriptions to professionals or organisations - please contact us for prices

Please complete this form and send to NAM, FREEPOST LON17995 London, SW9 6BR

HIV & AIDS Helplines

The Sexual Healthline

from the Department of Health

telephone 0800 567123

opening hours daily, 24 hours

Terrence Higgins Trust Helpline

telephone 0845 1221 200

opening hours Monday-Friday, 10am-10pm
Saturday & Sunday, 12noon-6pm

HIV i-Base Treatment Phonenumber

telephone 0808 800 6013

opening hours Monday-Wednesday, 12pm-4pm

More from NAM

NAM Information Forums

Monthly, free meetings offering an opportunity to hear the latest news, views and research around HIV treatments. Held in the evening at a central London location. Call NAM for details.

Donate to NAM

Every year NAM provides information resources, like this booklet, to thousands of people living with HIV, completely free of charge. To do this we really do rely on the generosity of people like you to help us continue our vital work. You can make a difference today.

Please make a donation by visiting **www.aidsmap.com/donate** or by ringing us on 0207 840 0050.



www.aidsmap.com

NAM

Lincoln House
1 Brixton Road
London
SW9 6DE
UK

tel +44 (0) 20 7840 0050
fax +44 (0) 20 7735 5351
email info@nam.org.uk
website www.aidsmap.com

Third Edition 2007
© NAM
All rights reserved

photography Creatas
print Lithosphere

This booklet can be viewed in large print as a pdf file using Acrobat Reader.

Call NAM on
020 7840 0050.

Visit NAM's website www.aidsmap.com for

- an introduction to HIV and AIDS
- online access to other booklets in this series
- NAM Factsheets, plain language guides to over 100 HIV-related topics
- the latest HIV-related news

This booklet is part of a series available free from NAM to people personally affected by HIV. The series includes:

- adherence
- anti-hiv drugs
- clinical trials
- hiv & children
- hiv & hepatitis
- hiv & mental health
- hiv & sex
- hiv, stigma & you
- hiv & tb
- hiv & women
- hiv drug resistance
- hiv therapy
- lipodystrophy
- nutrition
- viral load & CD4