

george house trust
still life with HIV



HIV Treatments and Side Effects Training Part One Welcome!



Session Outline

- Understand the HIV lifecycle
- Understand how HIV treatments attack HIV
- Understand basic terminology in terms of treatments and side effects
- Understand some of the issues for people in relation to treatments/side effects

What names have you heard?



- ARVs (Anti Retrovirals)
- HAART (Highly Active Anti Retroviral Therapy)
- Combination Therapy
- HIV Meds
- Anti HIV Drugs
- HIV Treatments

When did ARVs become available



- 1996....
- In some countries in the world treatments are still not readily available
- In some countries only the older treatments are available

The immune system is the body's natural defence system. It's a network of cells, tissues and organs inside the body.



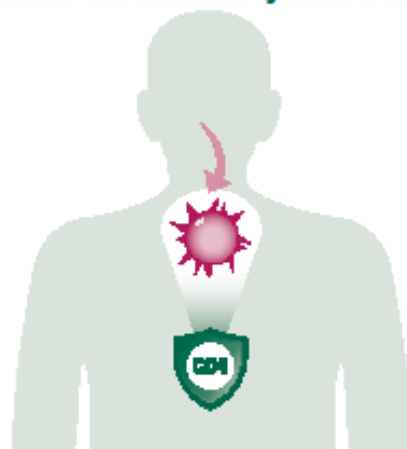
'Pathogens' (or germs) are living things that can cause disease. Bacteria and viruses are both pathogens. We come into contact with them all the time – there are pathogens in the air we breathe, in the food we eat and elsewhere in our surroundings.



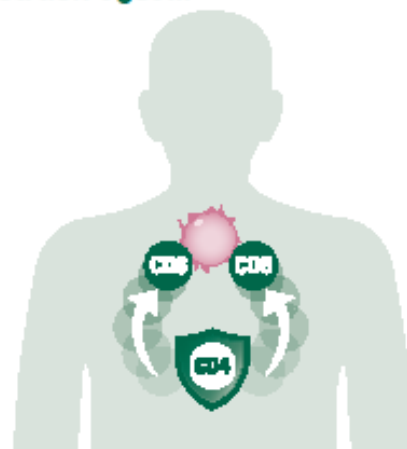
But pathogens don't usually cause problems, because the immune system attacks them if they get inside the body.



When the immune system is strong, you don't get ill

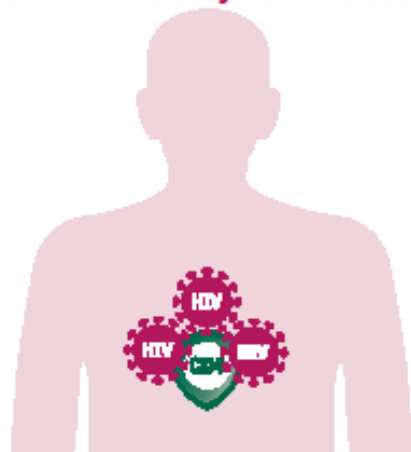


● Once a pathogen has got inside the body, cells in the immune system (called CD4 cells) recognise it as something that doesn't belong there.



● Other immune system cells (including CD8 cells) are sent to attack and destroy the pathogen.

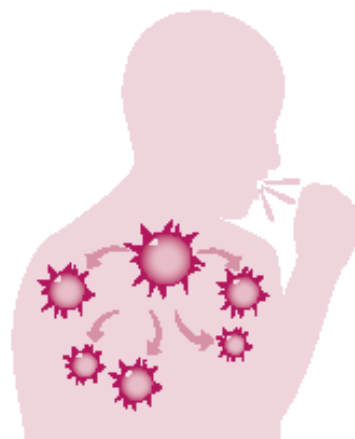
If the immune system has been made weak by HIV, you may get ill



● HIV has infected and taken over lots of your immune system's CD4 cells.



● When another pathogen gets inside the body, the immune system doesn't know how to fight it.



● The pathogen can multiply in the body and make you sick.

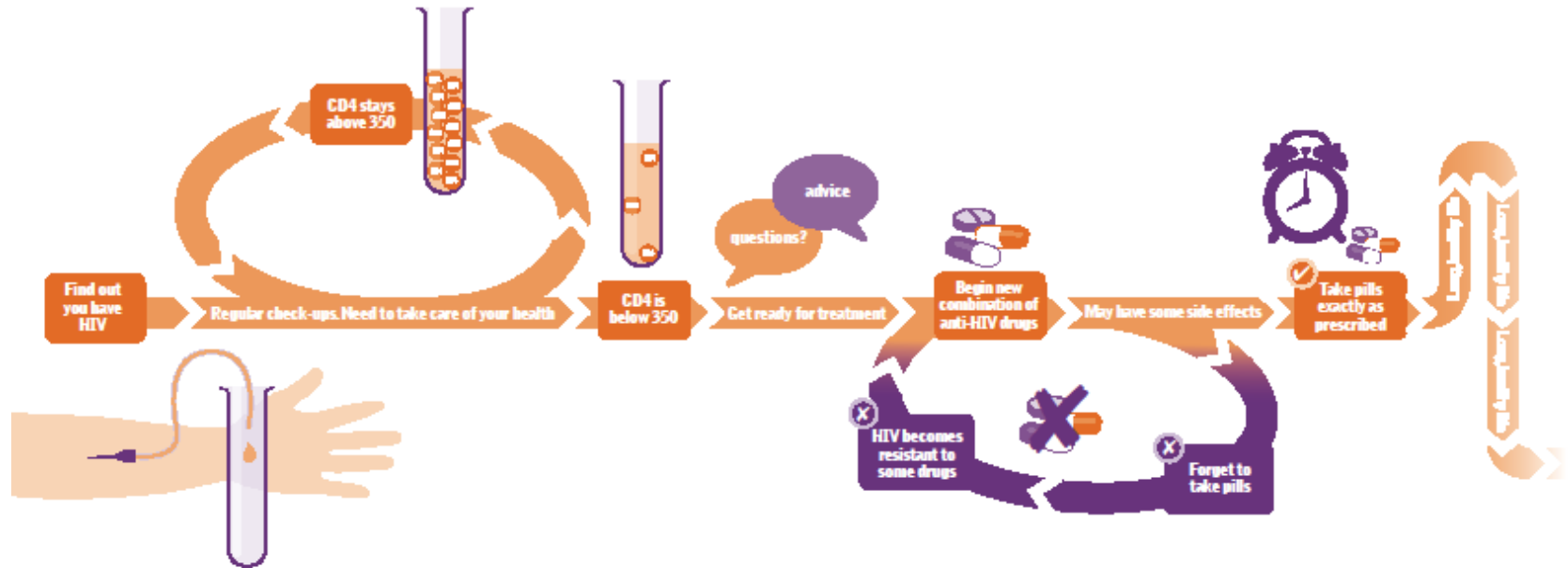
Important points

- The immune system is the body's defence system, which recognises and fights off pathogens (germs).
- HIV weakens the immune system, which means that common pathogens can cause infections and illnesses.
- HIV treatment strengthens the immune system.

This is a diagram that shows the journey a lot of people go on with HIV treatment.

However each person's situation is different.

Your own circumstances may mean that the journey you take is slightly different.



Important points

- Just as for anybody else, changes to your lifestyle can be good for your general health.

- Regular blood tests will show you how healthy your immune system is, if you need to take treatment, and if the treatment is working.



All anti-HIV drugs try to prevent HIV infecting new cells. But different types of drugs do this in different ways.

A combination of two different types of drugs provides a powerful attack on HIV.

The aim of treatment is an 'undetectable viral load' – very low levels of HIV in the blood.

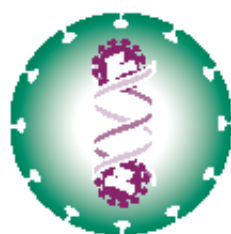
Here's how HIV infects cells in the body. The different drugs interfere with different parts of the process.

1
HIV attaches itself to a CD4 cell. CD4 cells are an important part of our immune system, the body's defence system.



Drugs called **'entry inhibitors'** try to stop this happening.

2
Inside the cell, HIV changes its structure.



Drugs called **'nukes'** and **'non-nukes'** prevent this.

3
HIV hides itself deeper in the cell.



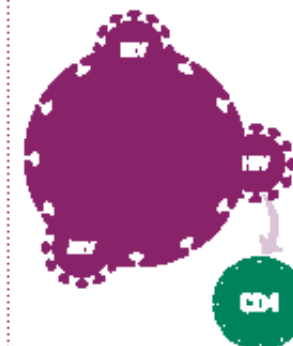
'Integrase inhibitors' stop this happening.

4
More HIV is produced.



The **'protease inhibitor'** (PI) drugs try to prevent this happening.

5
The new HIV pushes out from the cell, and moves on to find other cells to infect.

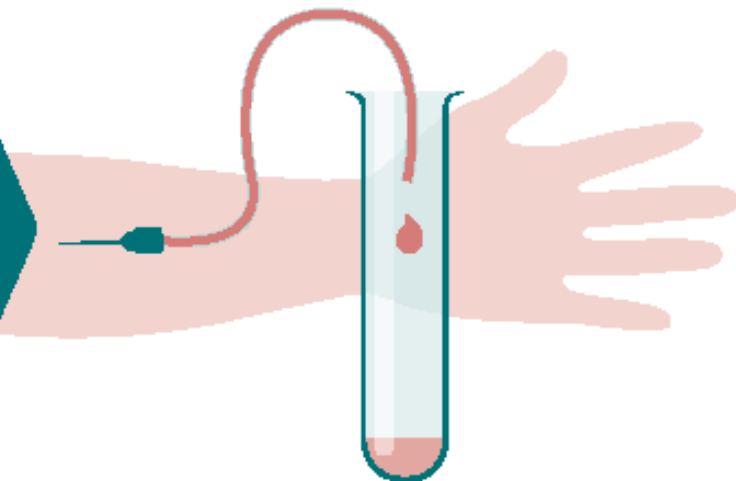


Important points

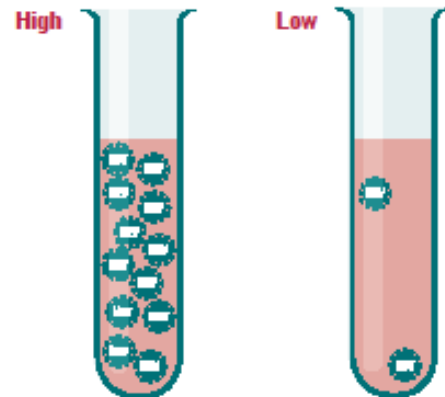
- Each type of drug blocks HIV in a different way.
- We take a combination of several drugs to give a strong attack on HIV.
- The aim of treatment is to have as little HIV as possible.

The aim of HIV treatment is to have a viral load that is 'undetectable'. But what does that mean and why is it important?

1 A viral load test tells you **how much HIV** there is in a drop of blood.



2 Test results give you a good idea of whether the amount of HIV is high or low.

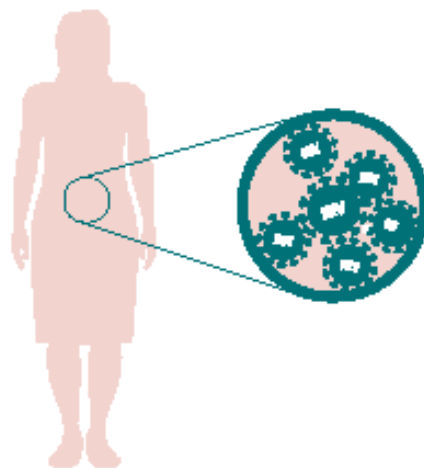


3 However, the tests can't measure very small amounts of HIV. When you have very little HIV, you will be told that your HIV is 'undetectable'. This means that there was so little HIV in one sample of blood that the test couldn't find any.

Undetectable
(very low)



4 It doesn't mean that HIV has disappeared entirely. It will still be present in other parts of your body, like the gut.



Important points

- If your viral load result is undetectable, there is only a little HIV in the body.
- The aim of HIV treatment is to have an undetectable viral load. This means that your HIV is being kept under control.

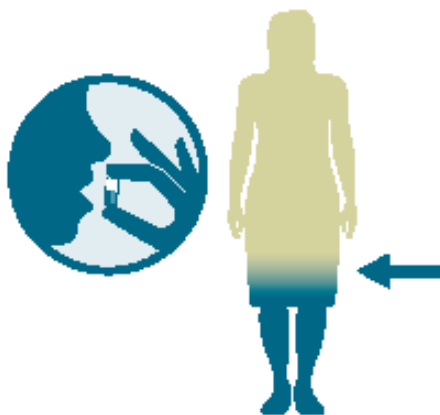
For HIV treatment to work well, you need to always take your pills at the right time, without missing any doses.



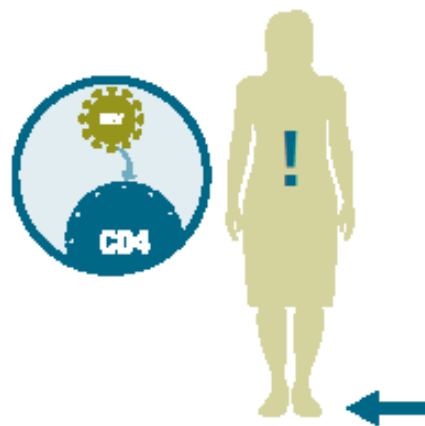
- 1 It's essential to take all your doses of HIV treatment at the right times and in the right amounts. For example, if you need to take your anti-HIV drugs twice a day, one dose will be powerful enough for around twelve hours.



- 2 You need to take the next dose **before** the last one is completely out of your body.



- 3 If you take it **late**, that means there **won't be enough** of the drugs in your body for some time. HIV will infect new cells.



- 4 But if you take the dose **on time**, there will still be enough of the drugs in your body to **keep HIV under control**.



Important points

- It's essential to take all your doses of HIV treatment at the right times and in the right amounts.
- Taking anti-HIV drugs regularly will mean that there is always enough of the drugs in your body. This will keep HIV under control.
- Not taking drugs as prescribed can result in HIV being harder to treat in the future.

As well as keeping HIV under control, anti-HIV drugs may also affect your body in other ways. Any extra or unwanted effects are called 'side effects'.

Short-term side effects

The most common side effects are the result of your body getting used to a new drug. After a few weeks, these side effects usually go away.

● Diarrhoea



● Feeling sick



● Feeling tired



● Disturbed sleep

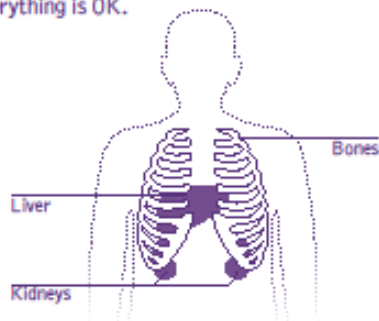


You can often take other medicines to limit these side effects. A few people find that these side effects don't go away. If this is the case, you can talk to your doctor about changing your treatment.

Long-term side effects

Side effects that have long-term consequences for your health are less common.

● Make sure your clinic does regular tests on your liver, kidneys and bones to check that everything is OK.



● There should also be tests for your cholesterol and glucose. Raised levels could mean you are at higher risk of heart disease, diabetes, high blood pressure or a stroke.



● Changes to your body shape (losing or gaining fat in specific places) are less common than in the past. Doctors now try to avoid using the drugs that cause these problems.



If there is a problem, it may be worth making changes to your lifestyle, taking an extra treatment or changing your HIV treatment.

Important points

- The most common side effects are short term, and can often be managed with medicines.
- Long-term side effects are less common.
- If side effects are causing you problems, talk to your doctor about them. It may be possible to change your treatment.



Starting Treatment.....

- Current health and complications (TB/Hep C)
- CD4 Count – how fast is it changing?
- Viral Load
- Your age
- Current medical guidelines and
- **WHETHER YOU ARE READY!**



Side Effects

- Common
 - Diarrhoea
 - Nausea
 - Tiredness
 - Disturbed Sleep
- Serious
 - Rash
 - Fever

What might impact on adherence?



- Employment
- Alcohol, recreational drug use
- Living situation
- Poverty
- Cultural issues
- Religion
- Fear/denial
- Others?

Support



- HIV Consultant
- HIV Nurse Specialist
- Pharmacist
- George House Trust Services Team
- Peer Support – Spaces, friendships
- Volunteers – Spaces/Community Support
- Health Trainer (future)
- Websites
- NAM Booklets (in reception)
- Other HIV agencies – Body Positive, Black Health Agency “Arise Project”, Sahir House, Cheshire Body Positive
- Practical Tools – pill boxes, bleeps, diaries



CD4

- The CD4 count is the measurement of the number of CD4 cells, in a millilitre of blood (not the whole of your body) and indicates how strong the immune system is.



Viral Load

- measures the number of copies of the HIV virus in a millilitre of blood and can predict how rapidly the CD4 count will drop. HIV Treatment aims to reduce Viral Load to *undetectable*



Side Effects

- The result of your body getting used to a new drug. There are ordinary side effects and serious side effects. As your body gets used to the drug, side effects should pass



Adherence

- Taking treatment exactly as prescribed – e.g at certain times, with /without food. Success of therapy requires high levels of commitment. Adherence levels of 90 – 95% are needed for best results. Possibility of developing resistance to specific drug if regime not adhered to



Undetectable

- Having so little HIV in a sample of blood that the test couldn't find any. You may still have HIV in other parts/fluids in your body (e.g. the gut).



Drug Resistance

- Resistance is when the structure of a virus makes tiny changes that stop the treatment from working. These are called mutations. Missing doses or not taking drugs as you are supposed to means the HIV can infect new cells and is more likely to develop resistance.

Remember.....



- You don't have to be an expert
- NEVER give medical advice
- Signposting people to info/staff
- New treatments come onto the market regularly and information changes
- The internet is a great tool but only use recommended sites

Useful Websites



UK Sites

www.aidsmap.com

www.i-base.info

American Sites

www.thebody.com

www.myhivlife.com