

Patient information from BMJ

Last published: Jan 04, 2024

HIV: antiretroviral treatment (ART)

HIV is a virus that harms the immune system so that it's harder for your body to fight infections and disease. There is no cure for HIV but there are treatments that weaken the virus and help people who are infected stay healthy. If you have HIV, treatment is with a type of medicine called antiretroviral treatment (ART).

Treatments for HIV

The main treatment for HIV, ART, uses drugs that stop the virus from multiplying so that it does less damage.

Keeping the virus under control in this way helps you to stay as healthy as possible. ART drugs are called antiretrovirals because HIV is a type of virus called a retrovirus.

Without treatment, HIV infection can lead to **AIDS**. AIDS stands for **Acquired Immune Deficiency Syndrome**.

AIDS is the name given to the group of infections and illnesses that develop as HIV gradually weakens the immune system. Without treatment, AIDS usually develops over 10 to 15 years after infection with HIV.

ART has been shown to:

- help stop HIV from progressing (getting worse)
- reduce the chances of illnesses that can sometimes go along with HIV
- help prevent HIV from spreading, and
- greatly reduce deaths from HIV.

If you test positive for HIV it is recommended that you start treatment with ART as soon as possible.

Types of ART

There are two main types of ART. The main type is for people who have tested positive for HIV and need lifelong drug treatment.

HIV: antiretroviral treatment (ART)

The second is called **pre-exposure prophylaxis (PrEP)**. Prophylaxis is another word for prevention.

People who take PrEP don't have HIV but are at high risk of being infected with the virus e.g., if they are sexually active with a partner who has HIV. To find out more about PrEP, see our leaflet *HIV: prevention treatment (PrEP)*.

Before treatment starts

Testing positive for HIV can be upsetting and frightening. You will probably have a lot of questions for your doctor. And they will want to give you all the information you need about treatment and living with HIV.

But dealing with that kind of information is hard when you've just been diagnosed with HIV. So it's important to take time to process the news and seek support from those closest to you.

Ideally, you should have counselling to help you deal with the diagnosis and understand the changes that will happen in your life.

This doesn't mean that your treatment will be delayed. But your doctor will understand that, as well as drug treatment, you might need time and help to accept and understand what is happening.

Many people find counselling helpful. It should focus on how you can get the best out of treatment and stay as healthy as possible. So you and your counsellor should discuss things that will help, including:

- Understanding your treatment and how to take your medicines as prescribed
- Preventing and treating infections that can happen when you have HIV. You might hear your doctor call these 'opportunistic' infections
- Getting good nutrition, and taking the right supplements, to boost your immune system and help you stay healthy and avoid infections. You should talk to your doctor before taking any supplements
- Staying well through healthy behaviours, such as not using drugs or drinking alcohol, and not smoking.

Starting treatment and 'staging

The treatment you need will partly depend on what stage your illness has reached.

'Staging' just means understanding what stage your illness has reached. It helps doctors to understand what kind of treatment you need.

Different health authorities around the world have different ways of staging HIV. But they are broadly similar, so that:

- Stage 0 or 1 is early-stage HIV, when someone might just have mild symptoms
- Stage 2 means someone has moderate symptoms, and
- Stage 3 or 4 is more severe, advanced illness, which could be developing into AIDS.

HIV: antiretroviral treatment (ART)

Your doctor will decide what stage your illness is at, depending on your symptoms. Your ART can then be tailored to what will help you the most at that stage.

Your doctor will recommend that you start treatment as soon as possible. The earlier you start treatment, the better the results are likely to be.

What are ART drugs?

There are several different ART drugs but they all do the same job of weakening the virus.

For the best results you will probably be prescribed two or three different antiretrovirals. The combination of drugs you are offered will depend on several things, including:

- The stage of your illness
- How well the drugs work together
- How easy they are to take, and
- Their known side effects when taken together.

The combination of drugs you are prescribed might change from time to time. This might happen if the drugs don't work well enough, or if you struggle with side effects.

When you take ART you will have regular tests to see if the drugs are doing their job of weakening the virus.

Sometimes these tests show that the drugs are not working well enough, and so you may need to start treatment with a different group of drugs.

The most common reason that treatment fails in this way is when people don't take their medication as prescribed: for example, if they miss a few doses.

When this happens the virus survives and gets stronger, so those initial drugs likely won't work as well for you any more. That's why it is vital to get into the habit of taking your medication when you're supposed to.

Side effects of ART

Unfortunately, like all medicines, ART can cause side effects. These can include:

- Fatigue
- Nausea and vomiting
- Diarrhoea, and
- Headache.

If you are experiencing side effects, you can talk to your doctor or counsellor about how to manage them.

For example, taking regular rest breaks can help with fatigue, and eating smaller meals and avoiding spicy foods can help with nausea. However, in cases of severe side effects, your doctor may suggest that you need to try different ART drugs.

HIV: antiretroviral treatment (ART)

You should avoid alcohol when taking ART. Drinking alcohol weakens the immune system so that the drugs don't work as well. Talk to your doctor or counsellor if you need help to stop drinking.

Another side effect of ART is that it might actually increase your chances of getting some other health problems, such as diabetes or heart problems.

We don't understand this as well as we'd like to, and more research is being done to understand the links. For more information, see our leaflet *HIV: long-term complications*.

Drug interactions

Drug interactions happen when you take medicines that react badly with each other, causing you problems or side effects.

Doctors know that some ART medicines don't react well with others, so your doctor should plan your treatment carefully. But this is not always easy.

For example, if you need to be treated for complications or infections, you will need to take extra medicines that might interact badly with your ART drugs.

Your doctor should know about these possible drug interactions and should discuss them with you, and how to spot any unusual side effects.

To find out more, see our leaflet: *HIV: common infections in people with HIV*.

What will happen?

It's not possible to say what will happen to individual people with HIV. As with all illnesses, some people do better than others.

But in most people the condition progresses slowly. This means that most people don't suddenly become more ill.

And ART can often slow the progress of the disease almost to a standstill, so that most people can live a long and healthy life. This is because it weakens the virus to the point where it can no longer be picked up on a blood test (called an undetectable viral load).

But ART gives the best results only when you take your medications exactly as prescribed. Your medical team will give you all the information you need about how to take your medications.

Because of ART, people with HIV live much longer than they used to. In many countries, the average life expectancy of people who start ART at age 20 is now between 63 and 67 years old.^[1]

But HIV is still a serious illness that can cause lifelong difficulties for many people. People with HIV have an increased chance of certain other serious health problems, including heart disease, kidney disease, cancer, and some bone problems.

If you have HIV you should see your doctor regularly, and be aware of the symptoms of other problems that can happen.

HIV: antiretroviral treatment (ART)

Many organisations and support groups offer help and information to people with HIV. For example, in the UK, the Terrence Higgins Trust (tth.org.uk) has been providing these services for many years.

Your doctor might be able to help you find support in your area, or you can search online.

References

1. Antiretroviral Therapy Cohort Collaboration. Survival of HIV-positive patients starting antiretroviral therapy between 1996 and 2013: a collaborative analysis of cohort studies. *Lancet HIV*. 2017 May 10;4(8):e349-e356.

The patient information from *BMJ Best Practice* is regularly updated. The most recent version of Best Practice can be found at bestpractice.bmj.com. This information is intended for use by health professionals. It is not a substitute for medical advice. It is strongly recommended that you independently verify any interpretation of this material and, if you have a medical problem, see your doctor.

Please see BMJ's full terms of use at: bmj.com/company/legal-information. BMJ does not make any representations, conditions, warranties or guarantees, whether express or implied, that this material is accurate, complete, up-to-date or fit for any particular purposes.

© BMJ Publishing Group Ltd 2025. All rights reserved.

What did you think about this patient information guide?

Complete the [online survey](#) or scan the QR code to help us to ensure our content is of the highest quality and relevant for patients. The survey is anonymous and will take around 5 minutes to complete.



BMJ Group