Factsheet Pre-exposure prophylaxis (PrEP)

Key points

- PrEP is highly effective in preventing the sexual transmission of HIV.
- For PrEP to work well, it's important to take the pills regularly.
- While PrEP can prevent HIV, it does not protect against other sexually transmitted infections.



Pre-exposure prophylaxis (PrEP) is a form of HIV prevention that uses medication to protect HIV-negative people from acquiring HIV. It means people take anti-HIV drugs when they are at risk of exposure to HIV.

The principle of PrEP is similar to that of antimalarial tablets, used to prevent malaria when travelling in tropical countries. If the person taking PrEP is exposed to HIV, the anti-HIV drugs in their body stop the virus from entering cells and replicating. This prevents HIV from establishing itself and stops the person acquiring HIV.

Research shows that PrEP is highly effective in preventing the sexual transmission of HIV, as long as the drugs are taken regularly, as directed. It works for men and women, heterosexual and gay. While PrEP can prevent HIV, it does not prevent other sexually transmitted infections or pregnancy.

> *"PrEP could be helpful if the sex you are having is not always as safe as you would like it to be."*

As well as pre-exposure prophylaxis (PrEP) you may also hear about post-exposure prophylaxis (PEP). Both use anti-HIV drugs as 'prophylaxis', in other words as prevention.

PrEP involves taking medicine on an ongoing basis, *before* possible exposure to HIV, because you are aware of an ongoing risk of HIV infection. PEP involves taking medicine for 28 days, *after* a specific incident that may have put you at risk of HIV. There's more information about PEP in NAM's *Post-exposure prophylaxis* factsheet.

Taking PrEP

The medications usually used as PrEP are tenofovir and emtricitabine. When these drugs are combined in a single pill it is usually called *Truvada.* These drugs were chosen for use as PrEP partly because they have fewer side-effects than some other antiretrovirals.

For PrEP to work well, it's important to take the pills regularly, as directed by your doctor. An occasional forgotten dose will not make PrEP ineffective. But people who only occasionally take their pills will not be protected from HIV.

It's usually recommended that PrEP be taken every day. This maintains protective levels of the drugs in the body.

An alternative approach is to only take PrEP around the time of having sex. This may be possible for some people who usually know in advance when they will have sex. If you are only taking PrEP around the time of having sex, it is recommended that you take:

- a double dose (two pills) between 2 and 24 hours *before* sex,
- a single dose (one pill) 24 hours later, and
- another single dose 24 hours after that.

Taking pills this way may reduce side-effects. But with fewer overall doses, it's especially important not to miss doses.

Ideally, PrEP should be prescribed by a doctor and taken under medical supervision.

If you are in the UK, or another country where PrEP is not yet approved by regulatory agencies, you may not be able to obtain PrEP from a doctor. In these situations, some people have chosen to import their own PrEP drugs and arrange their own monitoring. There's more information on this in NAM's *How to get PrEP in the UK* factsheet.

It's important to check that you don't have HIV before beginning PrEP. While taking PrEP, regular clinic appointments are needed to check for side-effects and to repeat HIV testing, as well as for advice and support.

The effectiveness of PrEP

Several studies have shown that PrEP significantly reduces the risk of HIV infection. The World Health Organization supports the use of PrEP.

In a study done with gay men in England, daily PrEP reduced HIV infections by 86%. In a study with gay men in France, PrEP taken before and after sex also reduced infections by 86%.

PrEP can work for heterosexual men and women too. In a study done with couples in Africa, it

reduced infections by 75%. But some other studies had less impressive results, because too many of the people taking part did not take PrEP regularly.

In studies, when PrEP appears not to have worked for someone, this was because the person was not actually taking the medication. In people who are able to take PrEP regularly, only occasionally missing doses, PrEP appears to prevent almost 100% of infections.

The availability of PrEP

PrEP has been available in the US since 2012. At the moment, PrEP is not generally available in the UK or in other European countries with the exeption of France, which approved PrEP in late 2015.

Individuals living in the UK can purchase PrEP drugs from overseas and import them into the UK. For more information on this, read NAM's *How to get PrEP in the UK* factsheet.

When PrEP is made available, there will probably be guidelines on who can receive it. It may be recommended for individuals who are considered to be at increased risk of acquiring HIV. It won't be recommended for everyone.

Healthcare providers may need to ask people questions about their sexual behaviour and sexual partners before prescribing PrEP.

Would PrEP be right for you?

PrEP could be helpful if the sex you are having is not always as safe as you would like it to be. If it is sometimes difficult to use condoms or to be sure of your partner's HIV status, PrEP could make the sex safer. If it's likely that some of your sexual partners have HIV without realising it, then PrEP could help protect your health.

People are not expected to take PrEP forever. PrEP is most likely to be useful for a period of months or years when the risk of HIV is greatest. If you no longer feel at risk you can discuss stopping PrEP with your healthcare provider. You'll be able to re-start it later.

While PrEP provides extra protection against HIV, it does not protect against other sexually transmitted infections. Condoms can provide protection against gonorrhoea, chlamydia, syphilis and hepatitis C, as well as preventing unwanted pregnancy.

PrEP isn't the right choice for everyone. People who are able to consistently use condoms and other HIV prevention strategies don't need PrEP.

If your partners definitely don't have HIV, then PrEP isn't needed. And if you have a partner who is living with HIV, taking HIV treatment and has an undetectable viral load, then the risk of HIV transmission is extremely low anyway.

If it would be difficult for you to take pills regularly (either every day or every time you have sex) without missing doses, then PrEP would not be suitable. It might not be suitable for people

who dislike the idea of relying on medication or don't want to go to regular medical appointments.

Side-effects and resistance

Around one-in-ten people taking *Truvada* as PrEP experience short-term side-effects in the first few weeks of taking it. These problems, such as stomach problems, headaches and tiredness, are usually minor and go away after a week or two.

Long-term side-effects are rare. Up to 2% of people taking PrEP have small decreases in kidney function while taking it. This usually returns to normal after stopping taking PrEP. Healthcare providers monitor the kidney function of people taking PrEP.

While some people have expressed concern about the use of PrEP leading to the development of drug-resistant HIV, this has rarely happened in practice. There's more information on this in NAM's briefing paper on PrEP.

Find out more

How to get PrEP in the UK Simple factsheet

HIV & sex Information booklet

Condoms Simple factsheet

Transmission and viral load Basic leaflet with pictures

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