

DoxyPEP

Editors:
Gus Cairns
Robert Hejzak



This initiative has been independently developed and funded by the European AIDS Treatment Group (EATG).
© 2026. The materials are openly licensed under [CC BY-NC-SA 4.0](https://creativecommons.org/licenses/by-nc-sa/4.0/)

DoxyPEP (Doxycycline post-exposure prophylaxis) involves **taking the antibiotic doxycycline after sex to prevent some bacterial sexually transmitted infections (STIs).**

Doxycycline is the right antibiotic to take because it is relatively cheap, does not interact significantly with most other drugs, and has relatively few side effects. It is already used as a preventative drug against some other conditions.

Studies show that **DoxyPEP prevents 65-90% of chlamydia and syphilis infections, averaging 76%.** Its effectiveness against **gonorrhoea** is much more variable, ranging from **zero to 74%; the average from studies is about 35%.**

How do I take DoxyPEP?

To take DoxyPEP, you need to take a **200-milligram dose**, usually taken as two 100mg capsules. You should not take more than 200mg in any 24 hours.

It may also be considered for use as DoxyPrEP in three small studies of DoxyPrEP, taken as one 100mg capsule every day, it was as effective as DoxyPEP.

You should preferably **take DoxyPEP within 24 hours of sex**, as an STI 'morning after pill'. But it is probably effective up to 72 hours after sex. This means that if you have an active weekend and have sex, say, Friday, Saturday and Sunday, you don't have to take doxycycline every day: you can take your dose Sunday evening or Monday morning.

Does it work?

Four randomised studies of DoxyPEP have been conducted, with an average of 430 people in them, and **three smaller ones of DoxyPrEP**, with an average of 41 people in them.

Averaged across these seven studies, including an African study in women that showed no efficacy, **doxycycline stopped 76% of chlamydia and syphilis infections that would otherwise have happened.**

Efficacy **against gonorrhoea averaged 35%**, but was much more variable, ranging from zero to 68%.

There have been three non-randomised studies, in San Francisco, Zurich and Milan, of the impact of DoxyPEP in a total of 4101 people attending sexual health clinics. **The reduction in syphilis** in DoxyPEP users in these studies was **75%**, and in **chlamydia** was **72%**.

The efficacy against **gonorrhoea** was very different between the three, with **no significant reduction in San Francisco or Zurich. However, there was a 74% reduction in Milan.** This was partly due to an experimental gonorrhoea vaccine, but the reduction due to doxycycline alone appeared to be about 50%. In the Zurich study, the reduction in gonorrhoea in people who took both DoxyPEP and the vaccine was 22%, and in the randomised French study where both were combined, 37.5%.

How about in cisgender-women?

The only study of doxycycline STI prophylaxis that showed **efficacy in cisgender women was of DoxyPrEP among sex workers in Japan.** There was a study in **African women of DoxyPEP** that found it **did not work**, but that was probably due to low adherence.

At the moment, therefore, we have no proof DoxyPEP works in cisgender women. There's no reason to think it won't, but we need studies to prove it.

Is it safe?

Doxycycline, though safe, can have **side effects**, most commonly **feeling sick or getting an upset stomach**. Take it with plenty of water and maybe with some food. **Do not take it within two hours of taking antacids, milk or other dairy products**, as these may interfere with absorption. Doxycycline can increase your **skin's sensitivity to the sun**, so avoid exposure as much as possible.

There is little evidence that prolonged use of doxycycline, especially intermittent, causes chronic side effects. These have not been seen when four-week daily courses of the drug have been taken as a treatment or for prevention (e.g. for malaria).

Do **not** use **other antibiotics as STI PEP**. Some are less safe, such as amoxicillin, to which 10% of people are allergic. Others are still used to treat gonorrhoea and taking them could increase the problem of multi-drug-resistant gonorrhoea. No significant drug-drug interactions exist between doxycycline and ARVs used for HIV treatment or PrEP or gender-affirming hormone therapies.

What about resistance?

The bacteria that cause chlamydia and syphilis **almost never develop resistance to doxycycline**.

Gonorrhoea is a different story. **The gonorrhoea bacterium easily develops resistance to antibiotics**, and since the 1940s has developed resistance to several different classes. The first case of gonorrhoea resistant to the tetracycline class, which includes doxycycline was seen as early as 1962.

Not all gonorrhoea is resistant, and the **difference in DoxyPEP / PrEP's efficacy** against gonorrhoea in different studies is probably **due to local differences in resistance**. A global study showed that in 2025, 26.5% of gonorrhoea was resistant to tetracyclines in North America, 50% in Europe and 82% in Africa and east / southeast Asia. One European survey showed that the proportion of gonorrhoea resistant to tetracyclines ranged **from 12% in one country to 90% in another**.

There is already so much resistance to doxycycline that it **stopped being used to treat gonorrhoea in the early 1990s**. Current gonorrhoea treatment uses antibiotics from different families. These include **ceftriaxone, ciprofloxacin and azithromycin**, and this is why it is very important **not to use these antibiotics to prevent STIs**.

This means DoxyPEP use need not directly threaten gonorrhoea treatment. It is likely, however, that **widespread use of DoxyPEP will lead to more gonorrhoea that is resistant** to it and to falls in its efficacy for prevention. In the two largest randomised controlled studies, nearly **three times more people taking DoxyPEP** acquired **tetracycline-resistant gonorrhoea** than people who did not take it.

As mentioned above, vaccines against gonorrhoea are being studied. The meningitis B vaccine, which works against a bacterium similar to gonorrhoea, has had **efficacy ranging from zero to 46%** in studies. Despite this relatively poor efficacy, the regional health services of Galicia in Spain, and of England in the UK, started providing the meningitis B vaccine (brand name *Bexsero*) at sexual health clinics for people at risk in mid-2025.

However, a trial of a vaccine specifically designed against gonorrhoea was stopped in March 2024 due to lack of efficacy, and a randomised controlled trial of *Bexsero* reported no efficacy in February 2026. Two other trials of gonorrhoea vaccines are taking place, with results expected in 2026-27. A vaccine for chlamydia is also in early studies.

More about the bacterial STIs

Gonorrhoea, chlamydia and syphilis are very common, and the incidence of gonorrhoea and syphilis is still increasing in Europe.

In **70% to 80% of gonorrhoea and chlamydia infections**, there are **no symptoms**. When there are, they include inflammation and often a discharge in the urethra, rectum or (rarely) throat in men and from the cervix in women. Urethral gonorrhoea is more likely to be symptomatic. A particular strain of chlamydia can cause the acute and painful infection *Lymphogranuloma venereum (LGV)*, especially in gay men, though even this is not always symptomatic.

The body's natural immune reactions often lead to a **spontaneous cure** of chlamydia and gonorrhoea, within an average time of 10 weeks in gonorrhoea or 13 weeks in chlamydia. However, **we do not fully understand why some infections resolve and others do not**.

Left untreated, **chlamydia can cause pelvic inflammatory disease**, which can cause **infertility** in 10-20% of women. In men, **gonorrhoea can occasionally lead to inflammation in the scrotum and testicles**. Rarely, in 1-2% of cases, it can lead to **arthritis or heart valve disease**.

Syphilis is well known for its ability to cause a wide variety of **systemic problems** but acts slowly and is usually treated before it becomes serious. However, **it never spontaneously resolves**, and early symptoms, such as a rash, are sometimes missed. Early syphilis can cause serious symptoms such as **meningitis**, which in one US study occurred in 2.1% of HIV positive gay men and 0.6% of HIV negative gay men.

In cases where people get syphilis despite taking DoxyPEP, primary symptoms such as an ulcer may appear before people test positive for syphilis. Conversely, people may test positive without having any primary or secondary symptoms. We do not know how often such cases happen. But they underline that you should get tested regularly for STIs, including syphilis, even if you do use DoxyPEP. The other common STIs such as **HIV, hepatitis B and C, herpes, Mpox, and HPV (genital warts)** are caused by viruses and **cannot be prevented with doxycycline or other antibiotics**, though HIV can be prevented by taking antiviral drugs before sex (PrEP) or afterwards (PEP), and there are vaccines against hepatitis B, Mpox and HPV.

Guidelines and availability

DoxyPEP as an idea was partly initiated by members of the affected community. Surveys among **gay men using STI services** in the UK, Belgium, Netherlands and Australia from 2019 to 2024 found **antibiotics being used as STI PEP by 8% to 10%** of respondents. However, a community survey in Spain conducted in summer 2024 found that 55% of 150 gay men already using HIV PrEP had also taken DoxyPEP.

Guidelines have therefore been developed in order to meet a demand that was already there. But while clinical studies have firmly established the effectiveness of DoxyPEP, **there is no global consensus among public health experts** due to concerns about antimicrobial resistance.

In the **US**, the Centers for Disease Control (CDC) have issued recommendations that **DoxyPEP “should be considered for gay, bisexual and other men who have sex with men and for transgender women who have had gonorrhoea, chlamydia or syphilis at least once during the past year.”**

Other guidelines have been more cautious. The recommendations of the European Centre for Disease Prevention and Control (ECDC), issued in January 2026, say that DoxyPEP should focus on syphilis prevention, and should be recommended for people at the highest risk of it, including gay and bisexual men using HIV

PrEP, living with HIV, or regularly attending STI clinics. Other gay and bisexual men and transgender women, and male and female sex workers, especially migrants, may also benefit, they add.

In **Australia**, ASHM says that **DoxyPEP “should be suggested for gay and bisexual men with a syphilis diagnosis in the previous six to 12 months or with two or more STIs other than syphilis in the same period”.**

In the **UK**, guidelines were issued by BASHH in June 2025. They also specifically recommend DoxyPEP as a preventative for syphilis, saying **“We recommend DoxyPEP for cisgender gay and bisexual men who have sex with men and transgender women at elevated risk of acquiring syphilis”.** But they recognise its efficacy against chlamydia too.

No guidelines currently recommend DoxyPrEP, because there have only been small studies of it. While there is no reason to think it would be less effective, we need better evidence.

See below for other sets of guidelines.

What this means is that at the moment, if you are in Europe, doxycycline for STI prevention may not be **issued free of charge or as part of your entitlement** under your healthcare system by your local sexual health clinic or physician. If you have a sympathetic physician, they may provide a prescription for doxycycline if they consider you at high risk for STIs, but it may be a **private prescription that you will have to pay for.**

Otherwise, it may be possible to **buy doxycycline online**. It is not particularly expensive - one UK site offers it for the equivalent of €13.60 for 30 capsules - but whether you can do so legally depends on your national rules for buying and importing medicines, as it does for HIV PrEP.

Of note, searching for doxycycline prophylaxis also brings up adverts for ‘STI medicines’ that are **not** recommended, either as prevention or treatment, in current guidelines.

**Do you have questions?
Contact us: office@eatg.org**

Resources

Clinical guidelines and recommendations

International Organisations

IUSTI^[1] (June 2024)
https://iusti.org/wp-content/uploads/2024/06/DOXYPEP-Position-Statement-26_6_24-FINAL.pdf

EACS Guidelines (November 2024)
<https://eacs.sanfordguide.com/eacs-part1/art/eacs-pre-exposure-prophylaxis>

ECDC Public Health Guidance (January 2026)
Public health considerations on the use of doxycycline for post-exposure prophylaxis for bacterial sexually transmitted infections in the EU/EEA (January 2026 / public health guidance):
<https://www.ecdc.europa.eu/en/publications-data/public-health-considerations-use-doxycycline-post-exposure-prophylaxis-bacterial>

National Guidelines

USA
CDC (June 2024)
<https://www.cdc.gov/mmwr/volumes/73/rr/rr7302a1.htm>
2025 update at:
<https://www.cdc.gov/sti/prevention/doxy-pep.html>

San Francisco Dept. of Public Health (September 2024)
<https://www.sf.gov/sites/default/files/2024-09/Updated-Recommendations-Prescribing-Doxy-PEP-SFDPH-FINAL-9.12.24.pdf>

National Coalition of STD Directors
<https://www.ncsddc.org/resource/Doxy-and-sti-pep-sample-policies/> (sample policies)
<https://www.ncsddc.org/wp-content/uploads/2023/08/Doxycycline-as-STI-PEP-Toolkit-August-2023.pdf> (implementation toolkit)

National Network of STD Clinical Prevention Training Centers
https://courses.nnpctc.org/DoxyPEP_Resources.html

New Zealand (April 2024)
[https://www.nzshs.org/site_files/38652/upload_files/AoNZfinalDoxyPEPstatement\(1\).pdf?dl=1](https://www.nzshs.org/site_files/38652/upload_files/AoNZfinalDoxyPEPstatement(1).pdf?dl=1)

Australia (April 2024)
<https://www.mja.com.au/journal/2024/220/7/australian-consensus-statement-Doxycycline-post-exposure-prophylaxis-Doxy-pep>

Ireland (July 2024)
<https://www.sexualwellbeing.ie/for-professionals/research/research-reports/hse-interim-guidance-on-Doxycycline-as-prophylaxis-for-sexually-transmitted-infections-july-2024.pdf>

Great Britain (2025)
https://www.bashh.org/resources/141/doxycycline_postexposure_prophylaxis_2025

Germany (September 2023)
<https://onlinelibrary.wiley.com/doi/epdf/10.1111/ddg.15282>

Belgium (November 2023)
<https://breach-hiv.be/wp-content/uploads/2024/03/DoxyPEP-Breach-statement-AL.pdf>

Czechia (November 2024)
https://infektologie.cz/standardy2/DP_PrEP_PEP_24.pdf

France (January 2025)
https://www.has-sante.fr/jcms/p_3586490/fr/Doxycycline-en-prevention-des-infections-sexuellement-transmissibles-bacteriennes#ancreDocAss

Poland (2025)
https://ptnaids.pl/wp-content/uploads/2025/06/Rekomendacje_PTN_AIDS_2025_2.pdf

[1] IUSTI = International Union Against Sexually Transmitted Infections EUROPE

Community guidelines and recommendations

AVAC (advocate guidelines / June 2024)
<https://avac.org/resource/advocates-guide-Doxycycline/>

Switzerland (AIDS-Hilfe Schweiz)
<https://aids.ch/en/safer-sex/protection/Doxy-pep/>

Germany (AIDShilfe)
<https://www.aidshilfe-hamburg.de/informieren/aktuelles/Doxy-prep/-pep-was-ist-das>

(Every Health)
<https://www.everyhealth.me>

Italy (DirittiSessuali)
<https://www.dirittisessuali.it/p/Doxy-pep-linee-guida>

(Plus Roma)
<https://www.plusroma.it/Doxy-pep/>

Great Britain (Queer Health)
<https://www.queerhealth.info/lbgt/Doxy-pep>

Ireland (HIV Ireland)
<https://mpower.hivireland.ie/Doxy-pep/>



Scan the QR Code
to access more
DoxyPEP resources

The European AIDS Treatment Group (EATG) is a patient-led NGO that advocates for the rights and interests of people living with or affected by HIV/ AIDS and related co-infections within the WHO Europe region. Founded in 1992, the EATG is a network of more than 150 members from 45 countries in Europe. Our members are people living with HIV and representatives of different communities affected by HIV/AIDS and co-infections. EATG represents the diversity of more than 2.3 million people living with HIV in Europe as well as those affected by HIV/AIDS and co-infections.