

# Let's Talk About Doxy-PEP




## Why talk about doxy-PEP?

- More innovative tools are needed to decrease the transmission and new diagnoses of sexually transmitted infections (STIs), which continue to increase at alarming rates.
- From 2017 to 2021, U.S. cases of gonorrhea, syphilis, and congenital syphilis increased by 28%, 74%, and 203%, respectively.
- Certain populations, including gay, bisexual, and other men who have sex with men (MSM), as well as transgender women, are disproportionately impacted by STIs including HIV.

## What is doxy-PEP (doxycycline as post-exposure prophylaxis)?

- Doxycycline, an antibiotic taken after sex, has been recently shown to reduce the risks of syphilis, gonorrhea, and chlamydia in vulnerable populations.

## Case Study



Erika is a 25-year-old transgender woman who has had gonorrhea twice in the past year. Erika's boyfriend has HIV and is her primary partner. Erika also has two other casual male sex partners who have sex with other men.

Erika is currently taking HIV Pre-Exposure Prophylaxis (PrEP) to protect herself. Erika's most recent exposure to HIV/STIs occurred one week ago when she had condomless sex with a guy she met at the gym.

Erika presents to the STI clinic today with a history of dysuria (painful urination) and rectal discharge for 7 days. She undergoes urine, throat, and rectal testing for gonorrhea and chlamydia, and is started on treatment for those STIs while awaiting test results.

Erika expresses that she wants to take charge of her sexual health. She says she's heard from friends about a new antibiotic she can take to prevent STI acquisition but wants to know more about it.

## Why should we discuss doxy-PEP with Erika?

Three major studies have shown that doxy-PEP prevents bacterial STIs when doxycycline is taken within 24-72 hours after condomless sex. Erika meets the inclusion criteria for these studies, which enrolled cisgender MSM and transgender women who met the following conditions:

- Were at least 18 years of age,
- Had a bacterial STI in the past 12 months, and
- Were at increased risk for bacterial STIs

## Which behaviors place Erika at increased risk for acquiring STIs including HIV?

- Condomless (unprotected) sexual contact
- Recent sexually transmitted infection
- Multiple sexual partners

## What would be your talking points with Erika about doxy-PEP?

### What can you tell me about doxy-PEP?

- doxy-PEP is an antibiotic you take **after** sex to prevent getting an STI like syphilis, chlamydia, or gonorrhea.
- You take 2 pills (200 mg total) of doxycycline within 24-72 hours after a potential exposure to a bacterial STI.
- Potential exposure events include oral, anal, or vaginal sex without a condom or where a condom is not used for the entire time.

### How effective is doxy-PEP?

- A small number of clinical trials have been conducted, finding **promising results** in the **use of doxy-PEP to reduce STI acquisition** among **MSM and transgender women**. In a U.S.-based study, doxy-PEP was found to reduce the risk of bacterial STIs by more than two thirds per quarter within these populations (with risk reductions of 77-87% for syphilis, 74-88% for chlamydia, and 55-57% for gonorrhea).
- In a Kenyan study of cis-gender women, however, doxy-PEP was unfortunately not found to be effective against bacterial STIs; the reasons for this are still being explored.
- We also do not yet know how doxy-PEP may affect the good bacteria that live in the gut or contribute to antibiotic resistance. Research into these topic areas is ongoing.

### What are the side effects of doxycycline?

- Doxycycline is a common antibiotic, widely used in the management of other conditions (such as acne and malaria prevention in addition to STI treatment). It is generally safe, with no serious adverse events. Potential side effects of doxycycline include mild diarrhea, upset stomach, nausea, vomiting, and sun sensitivity.
- Things you can do to manage those side effects include staying out of direct sunlight (if possible), wearing protective clothing when outside, applying sunblock, and not using sun lamps or tanning beds. You should take doxycycline with food and with plenty of water and avoid taking it right before bed. Also avoid dairy products, calcium, antacids, and multivitamins 2 hours before or after taking doxycycline.

### What are the next steps for Erika?

After discussing doxy-PEP in detail, Erika decides she wants to start doxy-PEP and receives her first prescription. Remember that doxy-PEP is one tool in the sexual health toolbox, but there are many others. It is critical that Erika continues to take HIV PrEP, since doxy-PEP does not protect against HIV. It is also important to make sure Erika is given information about other ways to protect herself and her partners from getting STIs.

Ask Erika:

- How often do you screen for STIs and HIV?
- What is your experience with condom use?
- Tell me about your sex partners; what do they do to prevent STIs and HIV?
- Are you open to discussing recommended vaccines, potentially including: Mpox, HPV, hepatitis A/B, and the meningococcal vaccine?