

Condoms with nonoxynol-9 (N-9) – do they increase HIV risk? ^[1]

Dear Alice,

I have heard that the chemical nonoxynol-9 increased the chance of getting AIDS. Recently, I came across a product with octoxynol-9 in it. I wonder the difference between the two chemicals. Do they both increase HIV risk?

Answer

Dear Reader,

Great questions! Here's the scoop on what you heard: according to a four-year study conducted by the [Joint United Nations Programme on HIV/AIDS \(UNAIDS\)](#) ^[2], women who used nonoxynol-9 (N-9) gel were infected with human immunodeficiency virus (HIV) at a higher rate than those who used a placebo gel. Though N-9 isn't effective at protecting against HIV and other sexually transmitted infections (STIs), it's moderately effective in spermicides used for pregnancy prevention. Likewise, octoxynol-9 (O-9) is also used in spermicidal products, but there's little research to clarify its link to HIV risk. If you'd like to dive deeper into the facts, read on!

As for the previously mentioned UNAIDS study, female participants who used N-9 gel became infected with HIV at an approximately 50 percent higher rate than those who used a placebo gel, suggesting that it doesn't protect against HIV and may even facilitate its transmission. Other studies have shown that some N-9 users experienced irritation or lesions in the tender mucous membranes of the rectum and vagina, increasing the likelihood of HIV infection. Therefore, N-9 isn't recommended for use during anal and vaginal sex for individuals with a high risk of HIV. In fact, the [U.S. Food and Drug Administration \(FDA\)](#) ^[3] ^[4] requires over-the-counter (OTC) N-9 products to have a warning stating that N-9 does not protect against STIs, including HIV, chlamydia, and gonorrhea.

N-9, however, is an ingredient in some spermicidal creams, films, foams, gels, and suppositories and has been effective in preventing pregnancy, especially when used with a barrier method such as a [diaphragm or cervical cap](#) ^[5]. For those assigned female at birth who are at low risk for HIV and other STIs, N-9 is considered as an effective pregnancy prevention method by the FDA.

Some condoms are lubricated with N-9, with the intention of increasing their effectiveness as a contraceptive. However, there's currently no evidence that condoms with N-9 are any more effective in preventing pregnancy than those without it. Condoms without N-9 are recommended as the most effective form of STI prevention for sexually active people. When used correctly and consistently, condoms are 98 percent effective at preventing pregnancy, with typical use making them about 85 percent effective. For more information about how to use condoms, check out the [Condoms](#) [6] category in the *Go Ask Alice! Sexual and Reproductive Health* [7] archives.

As for O-9, it's in the same class of microbicides as N-9, but it's made with a different chemical. Because the FDA found that it wasn't safe and effective as a vaginal contraceptive, O-9 is no longer available in the United States. However, it may be found in other countries. Because it's much less common and there's less research, the relationship between O-9 and HIV isn't clear.

In short, there's no evidence to suggest that using condoms with N-9 is more effective than other contraceptives. However, condoms sans spermicide are still a low-risk, affordable, and highly effective method of reducing the risk of STI transmission and pregnancy. Some people at low risk for becoming infected with HIV may decide to use N-9, but it's not recommended for those with high risk. If you're still curious about STI prevention or contraceptives, a discussion with a health care provider or health promotion specialist may help you sort through all the options out there.

Thanks for inquiring,

Alice!

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