

Risk of HIV infection in studies of African women using hormonal contraceptives

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Use of the injectable progestin contraceptive depot-medroxyprogesterone acetate (DMPA) is linked to an increased risk for HIV infection, according to an article published by Charles Morrison of FHI 360 and colleagues in this week's *PLOS Medicine*. The researchers did not find a significantly increased risk for HIV infection in women who used a different injectable progestin, norethisterone enanthate (NET-EN), nor in those who used combined oral contraceptives (COC).

The researchers reached these conclusions by performing a meta-analysis combining individual participant data from 18 prospective studies that measured hormonal contraceptive use and incident HIV infection among women aged 15-49 years living in sub-Saharan Africa. The studies included 37,124 women, 1830 of whom became infected with HIV. When controlling for other factors that affect risk of HIV infection (e.g., condom use), the researchers found that users of injectable DMPA were 50% more likely to become infected with HIV than those not using hormonal contraceptives. For women using a different injectable progestin, norethisterone enanthate (NET-EN), or combined [oral contraceptives](#) (COC), the researchers did not find a significantly increased risk of becoming HIV infected compared to those not using hormonal contraceptives. Furthermore, DMPA users were 43% and 32% more likely to become infected with HIV compared to COC users and NET-EN users, respectively.

While combining data from many studies improves statistical power, the researchers note that the associations between [hormonal contraception](#)

and risk of becoming infected with HIV were attenuated for studies at lower risk of methodological bias compared to those at higher risk of bias, suggesting that some of the risk found to be associated with hormonal contraception may be due to bias in the original studies. They stress that a randomized controlled trial would provide more definitive evidence of the effects of hormonal contraception on HIV risk.

Until such studies are conducted, they conclude that "women with high HIV risk need access to additional safe and effective contraceptive options, and they need to be counseled about the relative risks and benefits of the available family planning methods."

More information: Morrison CS, Chen P-L, Kwok C, Baeten JM, Brown J, Crook AM, et al. (2015) Hormonal Contraception and the Risk of HIV Acquisition: An Individual Participant Data Meta-analysis. *PLoS Med* 12(1): e1001778. [DOI: 10.1371/journal.pmed.1001778](https://doi.org/10.1371/journal.pmed.1001778)

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