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Two Studies Show Pills Can Prevent H.I.V. Infection

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Two new studies released on Wednesday add to the growing body of evidence that taking a daily pill containing one or two [AIDS](#) drugs can keep an uninfected person from catching the fatal human immunodeficiency virus.

The studies were the first to show protection in heterosexuals; the only earlier one with similarly encouraging results involved gay men.

As it becomes ever clearer that modern antiretroviral drugs can not only treat the disease but prevent it, pressure is likely to increase on donors to find more money to supply them in places like Africa and on pharmaceutical manufacturers to either sell them cheaply or release their patents to companies that can.

“This is an extremely exciting day for H.I.V. prevention,” said Dr. Kevin Fenton, director of AIDS prevention at the Centers for Disease Control and Prevention in Atlanta. “It’s clear we’re not going to find a magic pill that prevents it, but this is adding more to the tool kit.”

Until a few years ago, [condoms](#) and abstinence were alone in that tool kit. Recent studies have added [circumcision](#), vaginal microbicides, a daily pill for the uninfected (known as pre-exposure prophylaxis, or PrEP) and early treatment for the infected (known as “treatment as prevention”).

One study released Wednesday, known as [Partners PrEP](#) and conducted in Kenya and Uganda by researchers from the University of Washington, showed that participants who took a daily Truvada pill — a mix of tenofovir and emtricitabine — had a 73 percent lower chance of getting infected. The study was done in 4,758 “discordant couples,” those in which one partner was infected and the other was not. Partners who took a Viread pill — which contains only tenofovir — had a 62 percent lower chance.

The second study, called TDF2 and done in Botswana by the C.D.C., found that those taking Truvada had a 63 percent lower chance of infection. The subjects were 1,200 sexually active young adults.

The studies were due to be released at an AIDS conference in Rome next week. But the University of Washington study was stopped early because it was so clear that the pills were working that it would be unethical to continue distributing placebos. [The C.D.C. decided to release its results simultaneously.](#)

These studies follow a [breakthrough pre-exposure prophylaxis study](#), known as iPrEx, that was conducted among gay men in San Francisco, with the results published in November. In it, men who took Truvada daily were 44 percent less likely to become infected. But those whose blood samples showed they took it faithfully had 90 percent protection.

Then in April, the field had an unexpected setback, when FEM PrEP, a [study in African women](#), was stopped early because it was not working. Researchers questioned whether many women either did not take their pills or gave them to their infected boyfriends or husbands.

Blood samples are the best way to tell whether study participants actually take their pills. Blood samples were drawn in both that study and the two new studies, but because all three stopped early, the samples have not been analyzed.

Two similar studies are in the works — another among heterosexuals in Africa and one among drug users in Thailand.

“We don’t anticipate needing more,” said Dr. Jonathan Mermin, a C.D.C. specialist in AIDS prevention.

The new studies may lead some heterosexual Americans to ask their doctors for Truvada. Although it will take several months to write new C.D.C. guidelines, Dr. Mermin said, doctors could use the guidelines written for gay patients after the San Francisco study, with the proviso that Truvada has not been tested in pregnant women.