

HIV VACCINE MYTHS AND FACTS

 **Myth: HIV vaccines can give people HIV.**

 **Fact:** This statement is false: a person CANNOT get HIV from the study HIV vaccines because these study vaccines do not contain real HIV. Some vaccines, like those for typhoid or polio, may contain a weak form of the virus they are protecting against, but this is not the case for HIV vaccines. Scientists make HIV vaccines so that they look like the real virus, but they do not contain any HIV. Think of it like a photocopy: it might look similar, but it isn't the original. In the past 25 years more than 30,000 volunteers have taken part in HIV vaccine studies worldwide, and no one has been infected with HIV by any of the study vaccines tested because they do not contain HIV.

 **Myth: An HIV vaccine already exists.**

 **Fact:** This is also false. There is no licensed vaccine against HIV or AIDS, but scientists are getting closer than ever before to developing an effective vaccine against HIV. In 2009, a large-scale vaccine study conducted in Thailand (called RV144) showed that a vaccine combination could prevent about 32 percent of new infections. The HVTN is leading the effort to build on these results, and planning for several studies is underway.

 **Myth: Joining an HIV vaccine study is like being a guinea pig.**

 **Fact:** Unlike guinea pigs, people can say yes or no about joining a study. All study volunteers must go through a process called informed consent that ensures they understand all of the risks and benefits of being in a study, and those volunteers are reminded that they may leave a study at any time without losing any of their rights or benefits. The HVTN takes great care in making sure people understand the study fully before they decide whether or not to join. All HVTN studies follows U.S. federal regulations on research, as well as international ethical standards and any country-specific requirements for the countries where our research is conducted. For more information, visit our Ethics page at:

hvtn.org/en/science/hiv-vaccine-basics/ethics-hiv-vaccine-trials.html .

 **Myth: Western scientists are unfairly using people in developing countries to test HIV vaccines.**

 **Fact:** In order to find a vaccine that works in all kinds of people, it is necessary to test them in all kinds of people. This is especially true for groups of people that have been hardest hit by the HIV epidemic and who might benefit the most from a vaccine, such as those who live in sub-Saharan Africa. Protecting the well-being of study volunteers is the greatest responsibility in every study, and the HVTN works to make sure that studies follow the highest ethical standards and are done in collaboration with local scientists and researchers, and in consultation with local communities. Many studies are done in the US, Europe, and developing countries at the same time, and we follow the same procedures and international standards no matter where the study takes place.

 **Myth: A person must be HIV-positive (infected) to be in an HIV vaccine study.**

 **Fact:** This is false. The vaccines being tested by the HVTN are preventive vaccines. They must be tested on volunteers who are not infected with HIV, because our goal is to keep people that way. There are other research groups that are conducting studies of therapeutic vaccines that might be used in people who are already infected with HIV.

 **Myth: Vaccine researchers want to study participants to practice unsafe behaviors so they can see whether the vaccine really works.**

 **Fact:** This is absolutely false! The safety of study participants is the top priority of HIV vaccine researchers and the staff at our study sites. Trained counselors work with study participants to help them develop an individual plan on how to reduce their risks for HIV infection. Participants also are given supplies such as condoms and lubricant as well as instructions on how to use them properly. We also provide information about new HIV prevention tools that are proven effective, such as PrEP and medical male circumcision, and how participants can access these tools. HIV efficacy

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trials enroll thousands of participants over several years, and even with the best risk reduction efforts some participants will still become infected. Changing human behavior is never easy; if it were, we would not have problems with obesity or lung disease due to smoking. One of the reasons a preventive HIV vaccine is so necessary is because its effectiveness is not so dependent on people's behavior.

 **Myth: Since pills can prevent HIV infection (known as pre-exposure prophylaxis or PrEP), an HIV vaccine is no longer necessary.**

 **Fact:** HIV-negative people who are at risk can take antiretroviral medication daily to lower their chances of becoming infected if they are exposed to the virus. The pill Truvada has been approved by the US Food and Drug Administration for use by people who are sexually active with multiple partners, for people who do not use condoms or do not use them all the time, and for people who have an HIV-positive partner or partners whose HIV status is unknown. PrEP is unlikely to be an option for everyone because the pills are expensive, may cause side effects, and may not be accessible. Remembering to take a pill every day is also challenging for some people. PrEP is an important new addition to the existing methods of HIV prevention, however, the most effective way to eliminate a disease is by using an effective vaccine. Vaccines are an effective, affordable and practical option. Until we have an effective vaccine, the HVTN supports the use of all available HIV prevention tools and encourages people to learn about their prevention options.

 **Myth: An HIV vaccine is unnecessary because AIDS is easily treated and controlled, just like diabetes.**

 **Fact:** While treatment for HIV infection and AIDS has dramatically improved over the last 30 years, it is no substitute for prevention. Current HIV medications are very expensive, and there are also many side effects. Sometimes people develop drug resistance and have to change the regimen of pills they take. Access to these drugs is not guaranteed, and some middle- and low-income countries do not have access to the same medicines that are available in the US and Europe. Additionally, the rate of new infections around the world is greater than our ability to get treatment to the people who need it.

 **Myth: The search for an HIV vaccine has been going on for a long time and it just isn't possible to find one that works.**

 **Fact:** The science of HIV-vaccine development is challenging, but scientific understanding continues to improve all the time. In just the past few years there have been promising results from the RV144 study in Thailand as well as exciting laboratory work, such as the discovery of new broadly neutralizing antibodies against HIV. HIV is a powerful opponent, but scientists are constantly learning from one another and using advanced technology to fight it. Science has come a long way in the 30 years since AIDS was discovered. In comparing preventive HIV vaccine work to other vaccine development, the time it has taken is not so surprising; it took 47 years to develop the polio vaccine!

 **Myth: Vaccines cause autism and just aren't safe.**

 **Fact:** This is false. Many studies have found this claim to be false. The British doctor who originally published the finding about vaccines and autism has since been found to have falsified his data, and was stripped of his license to practice medicine. There is no link between childhood vaccination and autism. It is true that vaccines often have side effects, but those are typically temporary (like a sore arm, low fever, muscle aches and pains) and go away after a day or two. The value of protection to vaccinated individuals and to the public has made vaccines one of the top public health measures in history, second only to having a clean water supply.

 **Myth: People who aren't at risk don't need an HIV vaccine.**

 **Fact:** A person may not be at risk for HIV today, but life can change and so can disease risk. A preventive HIV vaccine may also be important for one's children or other family members and friends. By being knowledgeable about preventive HIV vaccine research, a person can be part of the solution by educating their friends and family about the importance of research and debunking the myths that surround it. Even if a person is not at risk today, they can be part of the effort to find a vaccine that will hopefully save the lives of millions of people worldwide.