HIV VACCINE
TRIALS NETWORK

Frequently asked questions

HVTN 144 vaccine study

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1. What is a vaccine study?

A vaccine teaches the body to prevent a particular infection or fight a disease. In order to develop a vaccine, researchers need to test it in people. A vaccine study tests whether the vaccine is safe (does not cause health problems) and whether people's immune systems respond to the study vaccine. Your immune system protects you from disease. A vaccine must create immune responses in order to prevent a disease. Researchers only need to test a vaccine in a small number of people to learn if the immune system responds to it. If a study vaccine produces the desired immune responses, this helps researchers decide whether to do more studies of the vaccine. A vaccine study can also be used to find out if a vaccine might help prevent or fight an infection or disease. It takes many vaccine studies to produce a safe, effective vaccine.

Currently, there is no licensed vaccine against HIV or AIDS.

2. What is the HVTN 144 study?

HVTN 144 tests an experimental vaccine against HIV. The study vaccine is called N332-GT5 gp140 and it is given with a study adjuvant called SMNP. Adjuvants are products that help alert the immune system to have a stronger response. Together, N332-GT5 gp140 and SMNP are called the study products. From here on, we will call them the study vaccine, study adjuvant, or study products. The study vaccine is supplied by the International AIDS Vaccine Initiative (IAVI) on behalf of Scripps Consortium for HIV/AIDS Vaccine Development (CHAVD). The study adjuvant was developed at Massachusetts Institute of Technology (MIT) and is being provided for this study by IAVI.

The products used in this study are not made from live HIV, killed HIV, or HIV-infected human cells. This study vaccine cannot cause you to acquire HIV or AIDS.

The study vaccine is made from a manmade protein that is like the proteins found in HIV. It was created to maintain the shape of that real protein. Proteins are natural substances. They help build and maintain your body, and do the same for viruses, such as HIV. The body's immune system may respond to this protein; this is called an immune response. An immune

response prepares the body to recognize the same protein in HIV and fight the virus if a person is exposed to HIV in the future.

The study adjuvant has not been given to people before, but it is similar to an adjuvant used in the Novavax COVID-19 vaccine. The Novavax vaccine has been given to hundreds of thousands of people. The main ingredient in the study adjuvant is saponin. Saponin is a compound found in natural sources, such as the *Quillaja Saponaria* tree. There is a great deal of experience using saponins as vaccine adjuvants. Saponins, fats, cholesterol, and additional compounds that alert the immune system make up the SMNP study adjuvant. When mixed with fats and cholesterol, they can stimulate the immune system.

The study products have been given to mice, monkeys, and rabbits and showed no permanent side effects or health concerns. Even if something looks like it is safe or works in animals, it may not be true for people.

Although this study vaccine has not been tested in people before, similar protein vaccines have been tested in many other studies. HIV study vaccines like the one used in this study have been combined with different adjuvants and given to at least 245 people in other studies. In general, people who got these similar HIV protein study vaccines were not too uncomfortable and did not have any serious health problems related to the protein vaccine.

3. What organizations are involved in this study?

The National Institute of Allergy and Infectious Diseases (NIAID) and the HIV Vaccine Trials Network (HVTN) developed this study, along with IAVI, the company supplying the study products. NIAID is part of the National Institutes of Health (NIH), which is part of the United States government.

The HVTN is an international collaboration of scientists, educators, and community members searching for an effective and safe HIV vaccine. The HVTN is funded by NIAID.

In Nashville, the study is taking place at the Vanderbilt HIV Vaccine trials clinic at Vanderbilt University Medical Center.

4. When and where will this study be done?

Vanderbilt University Medical Center The study is expected to begin enrolling participants around July 2023. It will be done in these locations in the United States:

- Atlanta, GA: The Hope Clinic - Emory Vaccine Center
- Boston, MA: Brigham and Women's Hospital
- Nashville, TN: Vanderbilt HIV Vaccine Program
- New York, NY: Project Achieve at the New York Blood Center

- New York, NY: Columbia Physicians & Surgeons Research Unit
- Philadelphia, PA: University of Pennsylvania
- Rochester, NY: Rochester Victory Alliance
- San Francisco, CA: Bridge HIV, San Francisco Dept. of Public Health

5. Why is this study being done?

All the HVTN's studies work toward our mission to find a safe and effective HIV vaccine. The main purpose of this study is to see if the study vaccine is safe to give to people, and whether people are able to take the study vaccine without becoming too uncomfortable. Other important goals of the study are to test if people's immune systems respond to the study products when given at different doses, if the route of giving the injections (intramuscular or subcutaneous) changes the immune response, and if people's immune systems respond differently when the first dose is given all at once (bolus delivery) or split into smaller amounts given in multiple injections over time (fractionated delivery).

6. How many people will be in this study, and who can join?

The study will involve 84 participants.

To join this study, a person must not have HIV, must be in overall good health, and be between 18 and 55 years of age. They cannot be pregnant or breastfeeding. There are also other criteria that must be met. We will ask people about their medical history, give them a physical exam, and take blood samples for testing. Urine may be collected for pregnancy testing when applicable. We will also ask people about their sexual activity and drug use.

7. Is the study vaccine(s) safe?

We do not know all the risks of the study products because neither product has been given to people before. Based on the results from studies of the vaccine in animals, researchers believe that the study vaccine seems safe to give to people. However, results in animals do not always predict the results in people. That is why the main purpose of this study is to test whether the study vaccine is safe to give to people. Each participant's health will be watched closely throughout the study.

The products used in this study are not made from live HIV, killed HIV, or HIV-infected human cells. This study vaccine cannot cause you to acquire HIV or AIDS.

8. Can this study vaccine protect participants from acquiring HIV?

Participants should not expect to be protected from HIV by this study vaccine.

This study is not designed to find out if the study vaccine works to prevent or fight HIV. More studies will need to be done to learn if it does.

Because it is not expected that the study vaccine will prevent HIV/AIDS, participants in this study will be counseled on how to avoid behavior that will put them at risk of HIV acquisition.

9. How long will it take to find out if the study vaccine works?

The results of HVTN 144 will help researchers to know if they should do more studies with these study products. These additional studies would give the study vaccine and adjuvant to more people to see if they are safe. These studies would also give us a better understanding of how the immune system responds and whether the vaccine can prevent HIV acquisition. If more studies are done, it could take several years to find out if the study vaccine works.

10. How will the health and rights of participants be protected?

Protecting the health and respecting the rights of participants are top priorities for everyone in the HVTN. Without volunteers, we would never be able to find an HIV vaccine.

A first step in protecting the rights of study participants is to give them information about the study before they join. Clinic staff will give volunteers information about the study product and procedures, the possible risks and benefits to participants, and the rights that participants have. These rights include the right to receive any new information about the study that could affect whether a participant wants to remain in the study, and the right to leave the study at any time.

During the study, the clinic staff will monitor participants to make sure the study vaccine is not causing any health problems. The clinic staff will also ask participants about any social problems they may experience from being in the study. If a participant has a health or social problem related to being in the study, clinic staff will help them.

There are also several groups involved in protecting participants' rights and well-being:

- A study safety review team and an independent safety monitoring board regularly look at the health information from the study to decide whether it appears safe to continue giving study injections.

- An Institutional Review Board (IRB) reviews and monitors the study plan for each clinic doing the study, including the information that is given to people about the study, study progress, and health problems in participants. The IRB also looks at whether participant rights are being respected.

- The US Food and Drug Administration (FDA) also reviews the study. The FDA enforces US laws about research in humans and the use of study vaccines in research.

- Each study clinic has a Community Advisory Board (CAB). Each CAB's members are local people who bring the concerns and interests of the community and study participants to the researchers. CAB members are part of the team that develops each study. They also help develop or review the information that is given to participants.

11. Could the study vaccine cause a positive result on an HIV test?

Yes, the study vaccine may cause you to test positive on some types of HIV tests. If a participant gets an HIV study vaccine, their body may make antibodies to HIV. Some types of antibodies help you fight infection. Standard HIV tests search for HIV antibodies as a sign of infection. Because of this, a person could have a positive HIV test result even if they are not living with HIV. This is called a vaccine-induced seropositive (VISP) test result. You may also see this referred to as "vaccine-induced seroreactivity." We do not know who will have VISP test results or how long these test results may last.

People with VISP test results need specific HIV tests to determine if a positive test result is due to VISP or if they are living with HIV. Clinics participating in this study have access to these specific tests that look for the virus itself instead of looking for antibodies.

No health problems are associated with a VISP test result, but VISP test results may cause problems in several areas of life, such as medical or dental care, employment, insurance, visas for traveling, or entry into the military. You might not be allowed to donate blood or other organs. If you are planning to apply for insurance, employment, or the military, please inform your study site right away. The insurance company, employer, or military agency may not accept HIV test results from the HVTN. However, the HVTN can work with them to ensure the right test is done that will show your true HIV status.

12. Where can I find more information?

About HIV vaccine clinical studies: **www.clinicaltrials.gov**

About the HVTN: **www.hvtn.org**

About VISP: **https://www.hvtn.org/participate/visp-and-hiv-testing.html**

If you have additional questions that were not answered by this document, please ask us.

You can contact: *Shonda Sumner, Clinic Coordinator, MSN, RN at 615-343-6906*