

**“A Phase I, Randomized, Placebo-Controlled, Observer-blind, Two-dose (0-28 Day Schedule) Primary Vaccination Study of WRAIR Tetravalent Dengue Virus Purified Inactivated Vaccine (TDENV-PIV) in Healthy Adults in a Non-Endemic Region.”**

**Background:**

This study involves an experimental dengue vaccine. Dengue is a common infection affecting travelers to many areas of the world, including Southeast Asia, Central America, South America and the Caribbean. It is caused by a virus and is transmitted by a mosquito. Dengue can cause fever, tiredness and even severe bleeding or death. It can pose a threat to military operations, and because of this, the military is trying to develop a vaccine to protect against dengue.

This study involves an experimental dengue vaccine. This is the first time that this dengue vaccine will be used in humans. It will take place at a clinic-type facility in Silver Spring, Maryland. The vaccine will be given in your shoulder using a needle and blood samples will be collected to look at your body's response. It is also possible that you will receive a placebo, which is a salt water solution that will look like the dengue vaccine being tested but contains no germs, drugs, or other active ingredients. Using placebos helps scientists understand the data they collect during studies such as this one.

The goals of this study are to determine if the vaccine is safe and how your body responds to the vaccine.

**Duration:**

This study will last about 450 days, including the time involved for screening. One or two clinic visits are required to see if you qualify for the study. If you are accepted into the study, you will receive 2 doses of vaccine. After each injection, there will be follow-up visits. There will be a total of 11 scheduled clinic visits (not including the initial screening).

**Requirements and Restrictions:**

You must meet certain requirements to participate in this study:

1. Volunteers must be at least 18 and not older than 39 years of age at Visit 1.
2. Volunteers must be in good health and have no significant current or past diseases as established by a medical history and physical examination.
3. Volunteers must not have had received a previous experimental dengue vaccination prior to enrollment or plan to receive another flavivirus vaccine for the entire study duration.
4. Active duty military members need a signed approval memo from their supervisor to participate
5. Volunteers must have access to the Naval Medical Research Center and Walter Reed Army Institute of Research (WRAIR) in Silver Spring, be willing to attend all of the required visits over approximately 450 days (including screening), and be willing to refrain from participation in any other clinical studies involving investigational drugs or vaccines while participating in this study.
6. Volunteers must agree to not become pregnant or breastfeed during the study and also be willing to use a reliable form of contraception during the study
7. Volunteers must not have donated or received blood, blood products, or plasma within 90 days prior to starting the study or plan on donating blood or plasma during the study.

8. Volunteers must be negative for hepatitis B and hepatitis C viruses, as well as HIV, as confirmed by laboratory testing.

There may be other reasons why you cannot participate in this study and those will be discussed at the screening visit.

**Possible Risks:**

There are risks associated with receiving this vaccine. This is the first time this dengue vaccine will be given to humans. Parts of the vaccine have been given to animals, and the Food and Drug Administration, or FDA, is permitting the use of this vaccine for this study.

You will be randomized to one of 5 groups if enrolled in this study. Four of the 5 groups will involve administration of the experimental dengue vaccine with one of 3 possible adjuvants, or “helper substances” that we hope will improve your body’s immune response to the vaccine component. In addition, one of the vaccine groups will include a higher dose of experimental dengue vaccine. A final group will be administered a placebo vaccine, or a salt water solution mixture that does not contain any experimental vaccine. The purpose of using a placebo is to assist us in comparing any effects of the experimental vaccine.

Based on experience with similar vaccines, mild reactions are expected. These generally include tenderness, redness and swelling at the injection site. These reactions will most likely resolve on their own within a few days. You may also experience other reactions, such as headache, a low fever, or flu-like symptoms. There may be some risks that are unknown.

After each vaccination you will see a physician in the clinic who will evaluate the number and type of reactions.

**Compensation:**

You will receive compensation for participating in this study. Civilians or off-duty military will be compensated a maximum of \$1025:

- \$25 for screening visit (1 total)
- \$100 for visit with a blood draw (9 total)
- \$50 for visit without a blood draw (2 total)
- \$25 for referring another volunteer into the study (Referral Bonus)

On-duty military personnel and federal employees will be compensated a maximum of \$475:

- \$25 for screening visit (1 total)
- \$50 for visit with a blood draw (9 total)
- \$0 for a visit without a blood draw (2 total)

Federal employees will be compensated at the same rate as active duty military subjects (in accordance with the Dual Compensation Act). However, federal employees and active duty military personnel are entitled to full compensation if the individual provides documentation of approved leave or the visit occurs outside of normal duty hours. Otherwise, these individuals will be compensated at the lesser “on-duty” rate above. Volunteers will not be compensated for unscheduled visits.