

HDL Metabolic Milkshake Study

Who is conducting this Study? This study led by Jennifer Smilowitz Ph.D., and colleagues at the UC Davis Foods for Health Institute, and Food Science and Technology Department is part of the **Milk Bioactives** and **Metabolic Phenotype Programs**. This study has been reviewed and approved by the UC Davis Committee for the Protection of Human Subjects.

What is the purpose of the study?

The purpose of this clinical study is to examine the effects of consuming different combinations of dietary ingredients--fats and vitamin supplements tested on 3 separate test days on HDL cholesterol, known as the good cholesterol in the body. HDL picks up excess cholesterol from arterial plaque and transports it to the liver where it gets removed from the body. The different dietary ingredients tested are either complex dairy-derived fats or marine oils; B vitamins and antioxidants which are added to a milkshake. All milkshakes taste similar and are palatable.

Who can participate?

We seek 60 healthy women and men, 18-65 years old with **low levels of HDL Cholesterol** (for women this is less than 50 mg/dL and for men this is less than 40 mg/dL).

Who is NOT eligible to participate?

- Individuals who use tobacco products
- Individuals who are lactose intolerant and/or allergic to dairy
- Individuals who are pregnant or lactating
- Individuals with a known presence of gastrointestinal/malabsorption disorders
- Individuals taking prescription or over-the-counter medications that include corticosteroids,,medications for weight loss, immune-suppressants, amphetamines; fish, flax seed, evening primrose and borage oils; or niacin.

What is expected of me during the study?

Each participant will be tested on three separate days spaced apart by 1-2 weeks.

Before each test:

Each participant will fill out a dietary/health questionnaire and receive a study calendar with questions regarding diet and exercise prior to each test date. The day before each test day, participants will be asked to refrain from consuming a list of dietary ingredients and engaging in exercise, which have been found to influence HDL.

On each test day:

On the morning of each test day, participants will arrive to the Ragle Human Nutrition Center (1283 Academic Surge) at the UC Davis campus after a 12-hour fast. A fasting blood draw will be taken followed by consumption of a milkshake. Participants will be asked not to eat anything throughout the 5-hour test day but will be provided with ample bottled spring water. Participants will arrive to the Ragle Human Nutrition Center at 2, and 4 hours after consumption of the shake to have two additional blood draws taken. Participants will be asked to provide 3 urine samples during the same time points as the blood draws. The phlebotomist on the study is highly skilled.

How will I be compensated?

Participants will receive a lipid profile as well as \$70 in the form of a Safeway gift card: \$20 to complete the first test day; \$20 to complete the second test day; and \$30 to complete the third test day.

If you have any questions or interested in being screened for this study, please call the Project Coordinator, Nancy Rivera **(888) 217-5355** or email at: ucdavis.ffhi.clinicalstudies@gmail.com