

Trial record for: Palmitoleic acid | Pre-Diabetes

Monounsaturated Fatty Acid Supplementation for Overweight and Obese Individuals With Prediabetes

ClinicalTrials.gov Identifier: NCT05560971

Recruitment Status : Recruiting

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See [Contacts and Locations](#)

Sponsor:

Brigham and Women's Hospital

Collaborator:

Tersus Life Sciences LLC

Information provided by (Responsible Party):

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Study Description

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Brief Summary:

The purpose of this study is to understand and determine whether **Palmitoleic acid** (POA), monounsaturated omega-7 fatty **acid** (exists in regular diet), improves insulin sensitivity and decreases liver fat accumulation in humans. Unlike others, the study will use POA as a dietary supplement, rather than complex oils, which contain a significant amount of saturated fat palmitic **acid**. Palmitic **acid** has known harmful effects on the body. Hence, eliminating palmitic **acid** from supplementation of POA might increase its benefits. This trial stems from the preclinical discoveries that POA acting as a fat hormone, has beneficial effects on the liver, muscle, vessels, and fat tissue. Supporting this, higher POA levels in humans have been shown to be correlated with a reduced risk of developing type-2 diabetes and cardiovascular diseases such as heart attacks. In animals, it has been observed that POA improves sugar metabolism in a number of mechanisms related to the liver and muscle. Based on these findings, the design of this study is a double-blind placebo-controlled trial that tests the effects of POA on insulin sensitivity of overweight and obese adult individuals with pre-diabetes.

Detailed Description:

Specific aims of the study are as follows: 1) To test whether supplementation of POA, as compared to placebo, improves insulin sensitivity. 2) To test whether supplementation of POA, as