

Metabolic Flexibility Study

Main Study Questions

The objective of this study is to develop a new metabolic flexibility biomarker, which has application in the study of changes in diet and exercise on fuel management in humans.

Motivation for Research

The aim of this study is to examine the relationship between exercise intensity and duration on whole body fuel use and substrate supply over 24 hour periods of time. The unique aspect of this work is the long time frame of measurement (24 hours) while measuring the dynamics (2 minute interval) of energy expenditure and substrate utilization. The new biomarker involves the characterization of an individual's metabolic flexibility utilizing room calorimeters rather than the current method, which is based on glucose clamp data.

The study ran from mid-December 2012 to late June 2013.

