

My Blood Value Responses to Diet and other Activities

Ben Best

Pharmacy (BSc Pharm)

Physics/Computing Science (BSc)

FreeStyle Lite

to measure blood glucose

- Values in mg/dL
- [milligrams per tenth of a liter (decaLiter)]



CardioChek System

to measure blood triglycerides

- Values in mg/dL (same units as glucose)
- [milligrams per tenth of a liter (decaLiter)]



Measuring Ketones



Precision Xtra
Blood β -Hydroxybutyrate
[mmol/Liter]

CardioChek Plus

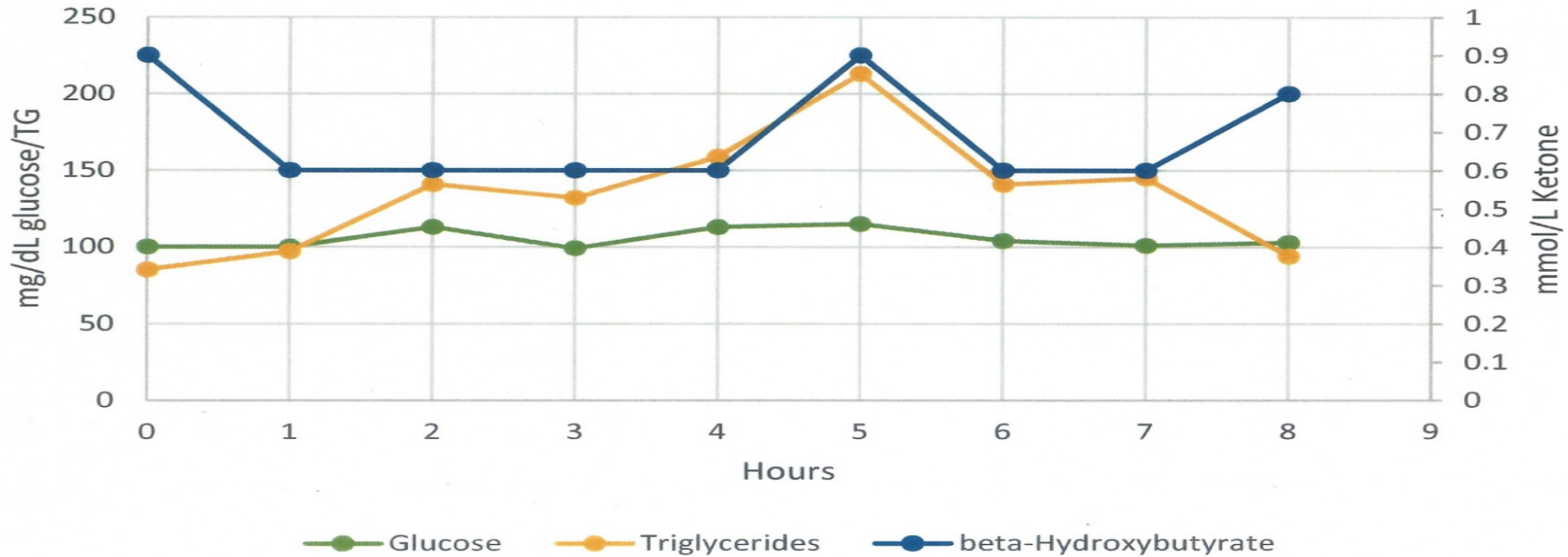
- Measures total cholesterol, HDL, and triglycerides
- Calculates LDL, non-HDL, and ratios
- Mostly not of much use for my purposes, and much more trouble to work with



Whole Eggs (high cholesterol)

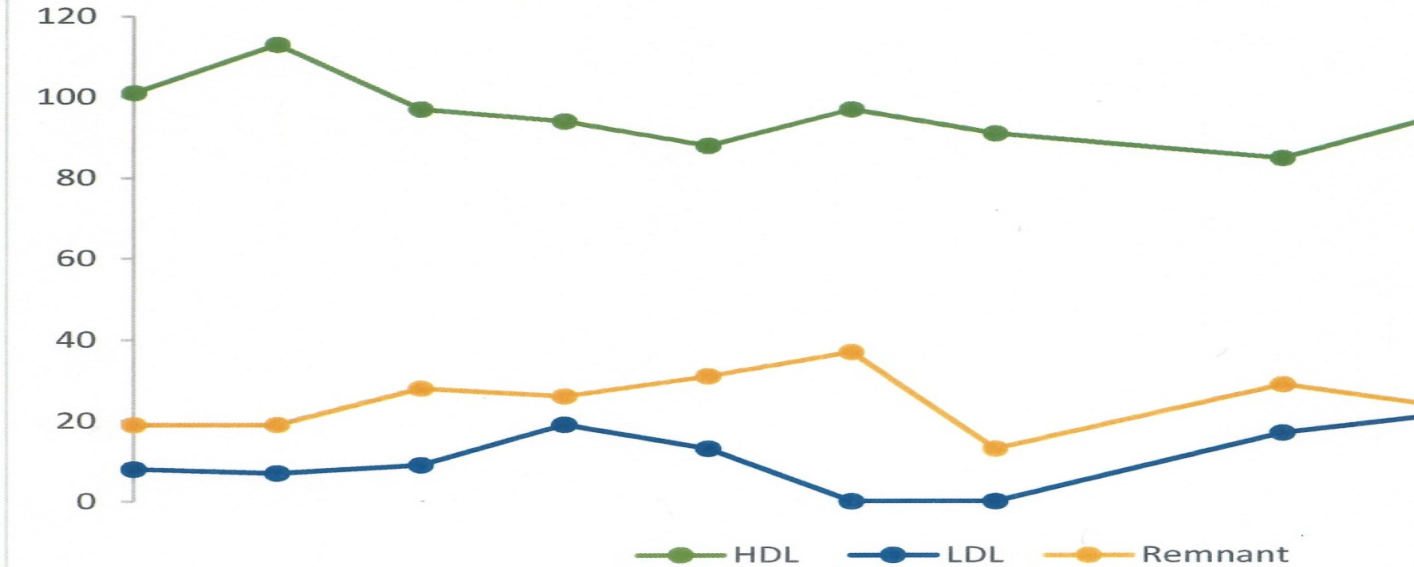
Glucose, Triglycerides, and Ketone

400 grams Cage-free Eggs



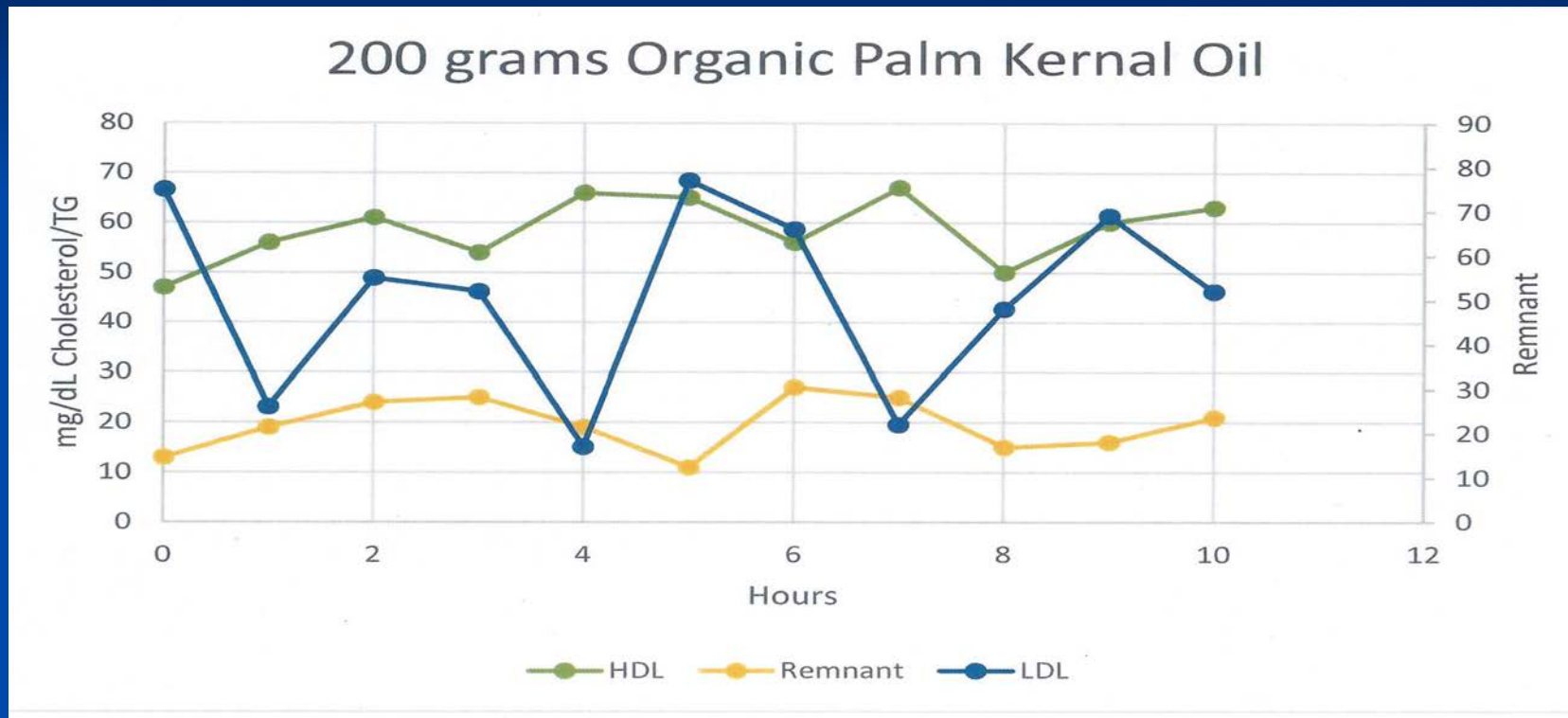
Whole Eggs (high cholesterol) HDL, LDL, and Remnant Cholesterol

Cholesterol, 400 grams Eggs



Palm Kernel Oil (47% Laurate, 44% Palmate)

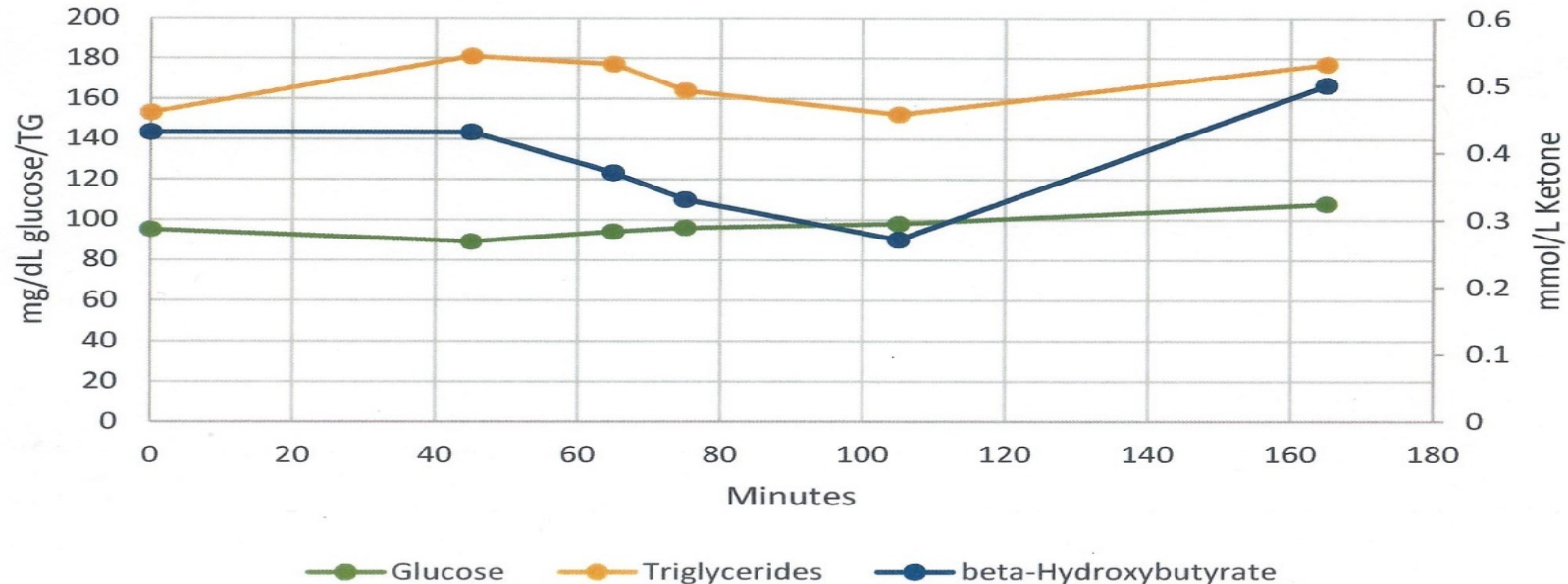
HDL, LDL, and Remnant Cholesterol



Exercise

45 minutes aerobic, 20 minutes HIIT, 20 minutes resistance (3 session averages)

Exercise : Aerobic/HIIT/Resistance



Exercise

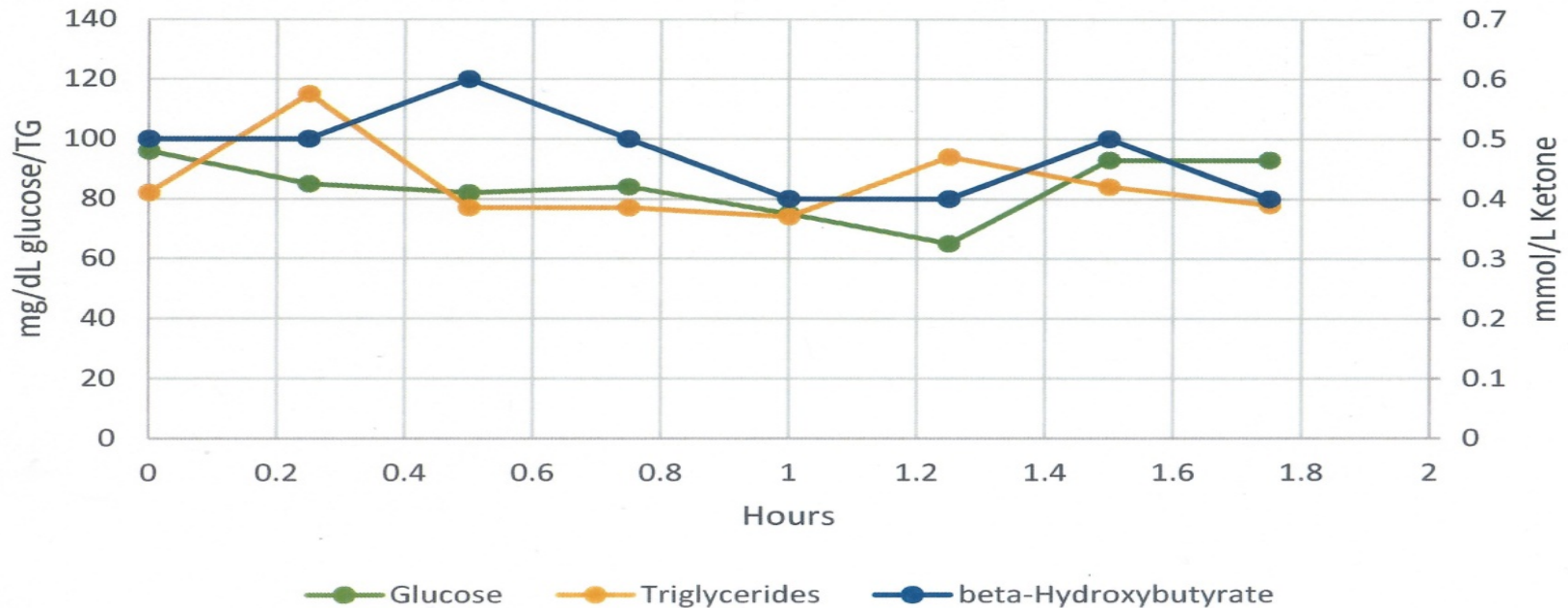
Continuous Glucose Monitoring

- My continuous glucose monitoring system consistently shows a 15 to 30 mg/dL drop in blood glucose during aerobic exercise, with blood glucose rising after stopping
- Interstitial blood versus blood vessel blood?



Warm bath: no effect?

1.0 to 1.75 hours in warm bath



Warm bath

Continuous Glucose Monitoring

- My continuous glucose monitoring system generally shows an increase in blood glucose during a warm bath
- Interstitial blood versus blood vessel blood?
- Disturbances caused by interrupting a bath to measure blood glucose values?



Deep Tissue (pressure) Massage

- Averages of 5 hour-long sessions of deep tissue massage

	GLUCOSE mg/dL	KETONES mmol/L	TRIGLYCERIDES mg/dL
BEFORE	85	2.1	160
AFTER	84	2.5	232

Thai (Stretching) Massage

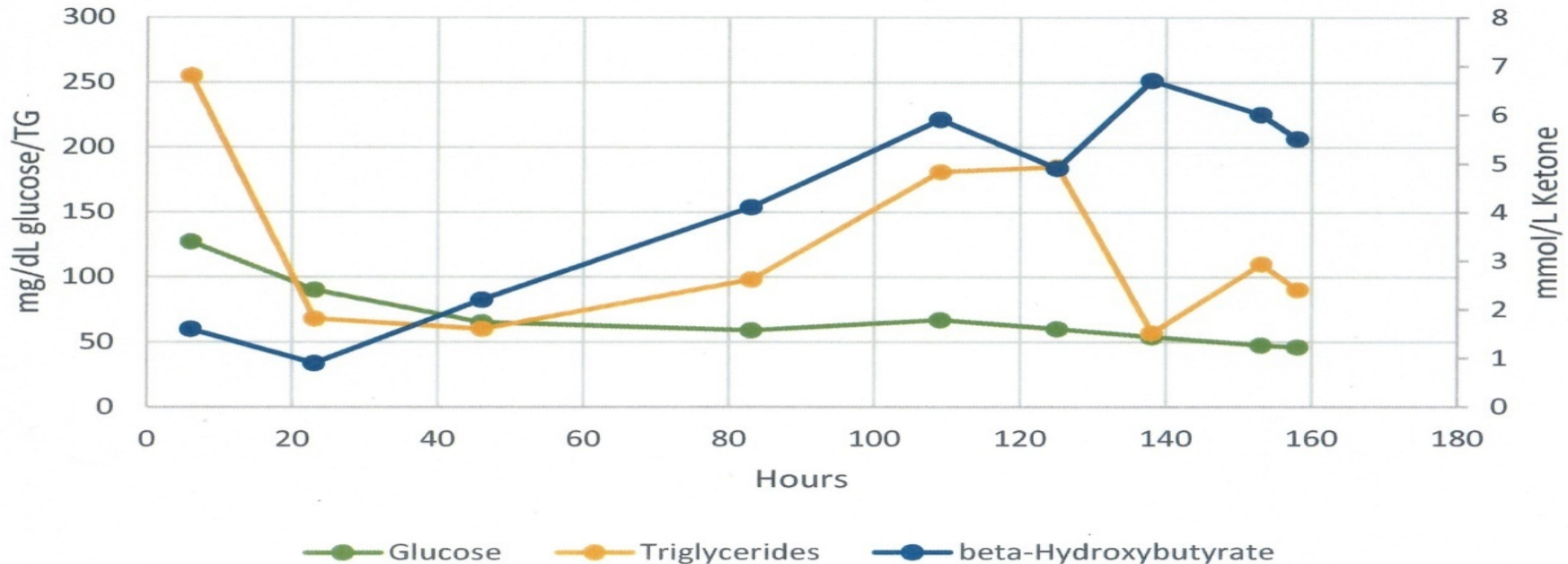
- Averages of 2 sessions of stretching massage (no oil)

	GLUCOSE mg/dL	KETONES mmol/L	TRIGLYCERIDES mg/dL
BEFORE	78	1.6	116
AFTER	75	1.1	98

Week-long water fast

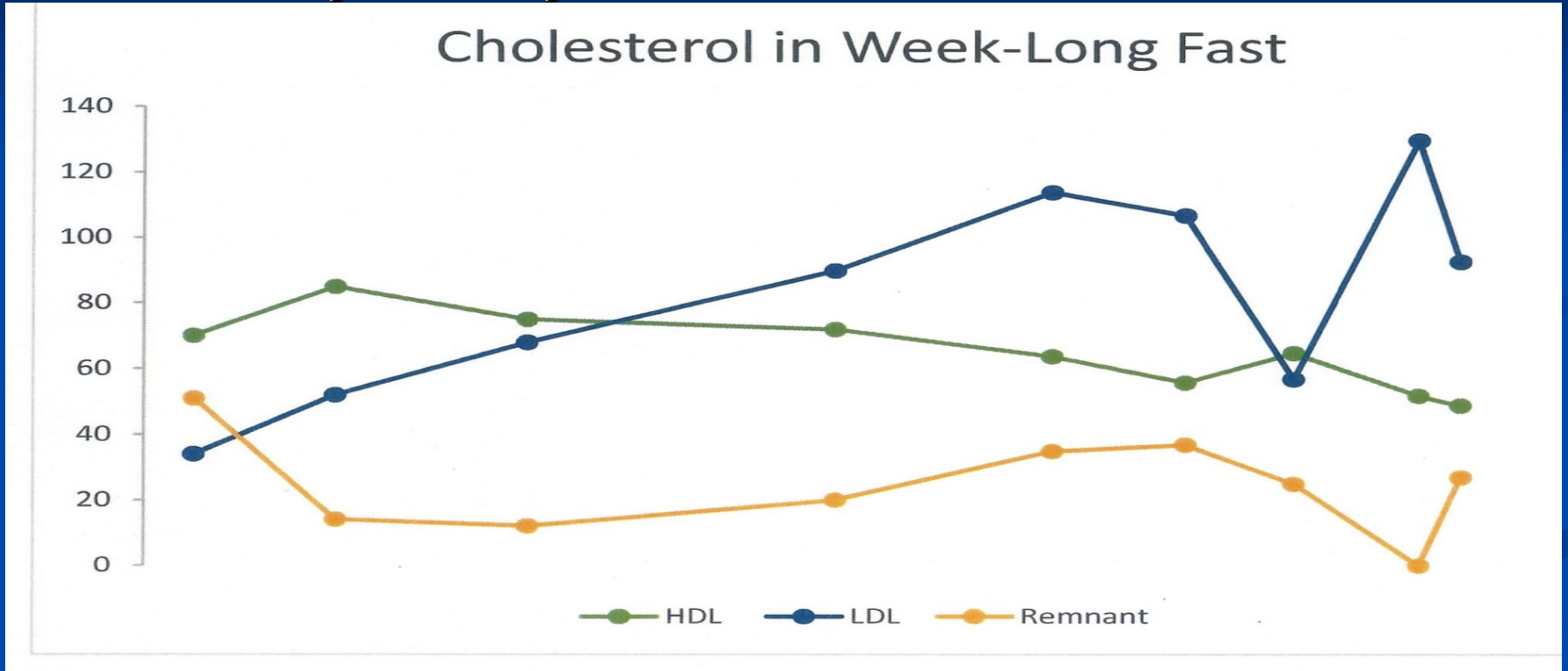
Glucose, Triglycerides, and Ketone

Week of Fasting



Week-long water fast

HDL, LDL, and Remnant Cholesterol



Sleep

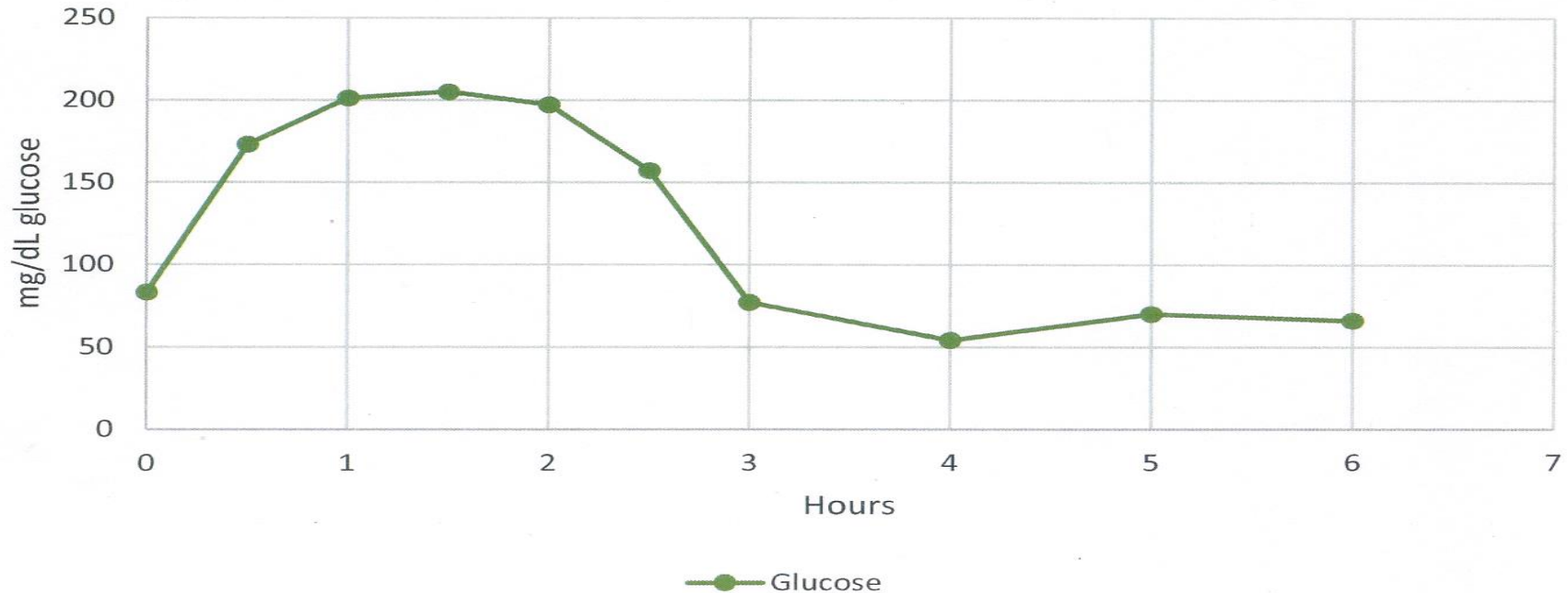
- Averages of 5 nights of sleep
- Higher blood pressure due to morning cortisol?

	GLU mg/ dL	KET mmol/ L	TGs mg/dL	Systolic mmHg	Diastolic mmHg	Heart Rate beats/ minute
BEF	101	0.71	174	111	74	65
AFT	91	0.49	183	116	80	61

CARBOHYDRATES

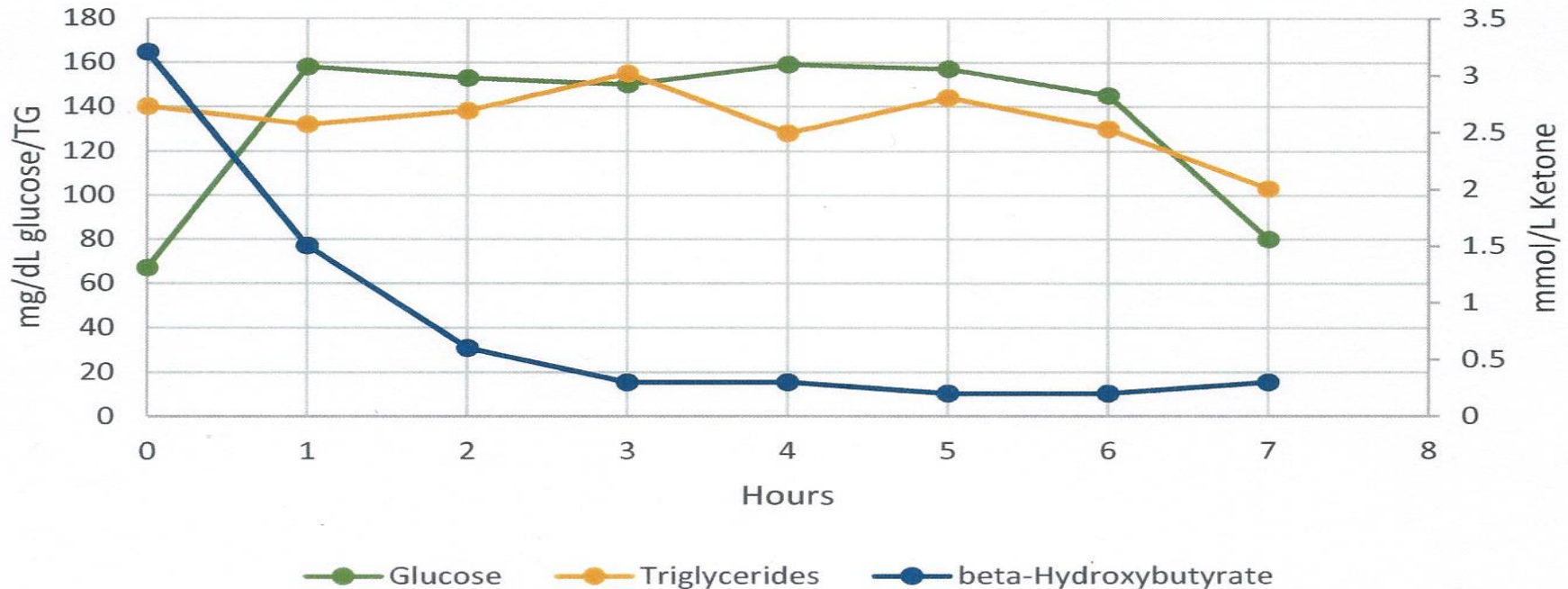
Oral Glucose Tolerance Test

70 grams Glucose



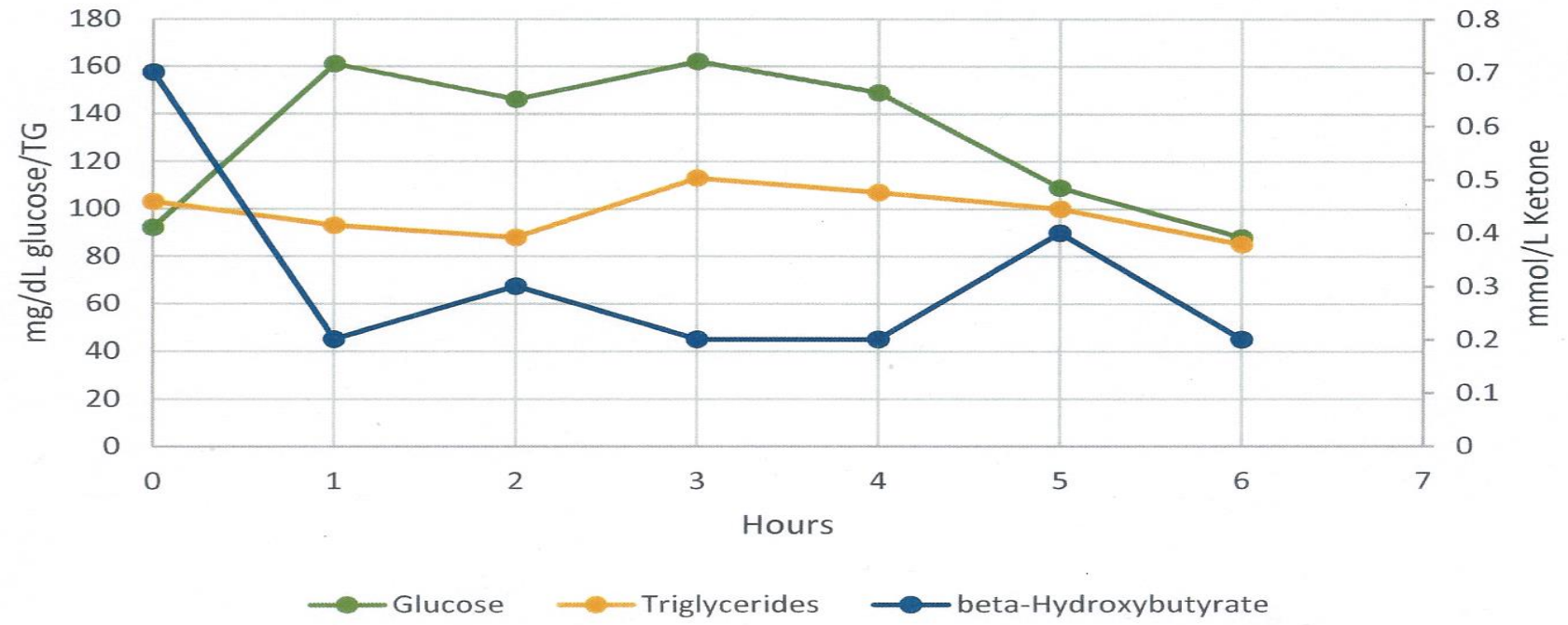
Hamburger Buns (White Bread)

400 grams Trader Joe's Hamburger Buns



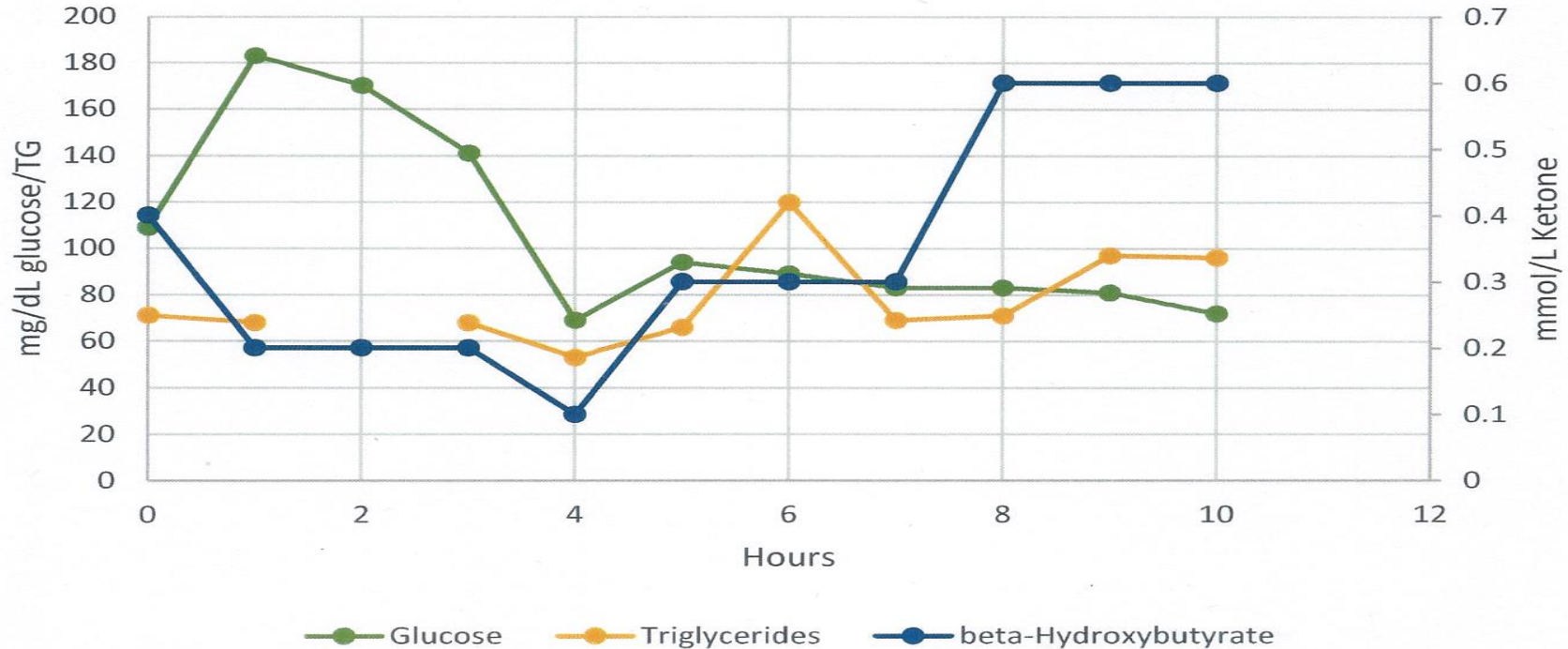
100% Whole Wheat Bread

400 grams Whole Wheat Bread



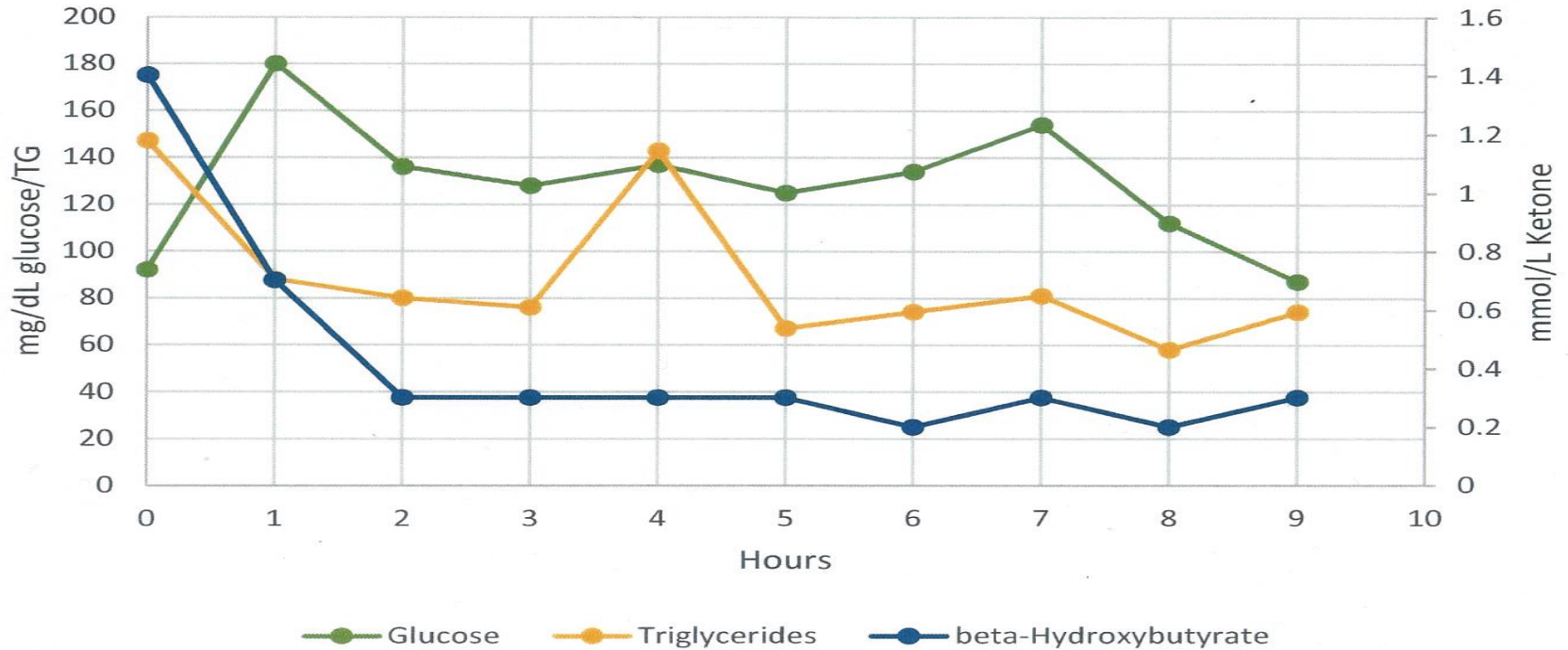
Pumpernickel rye kernal bread

400 grams Mestemacher Pumpernickel whole rye



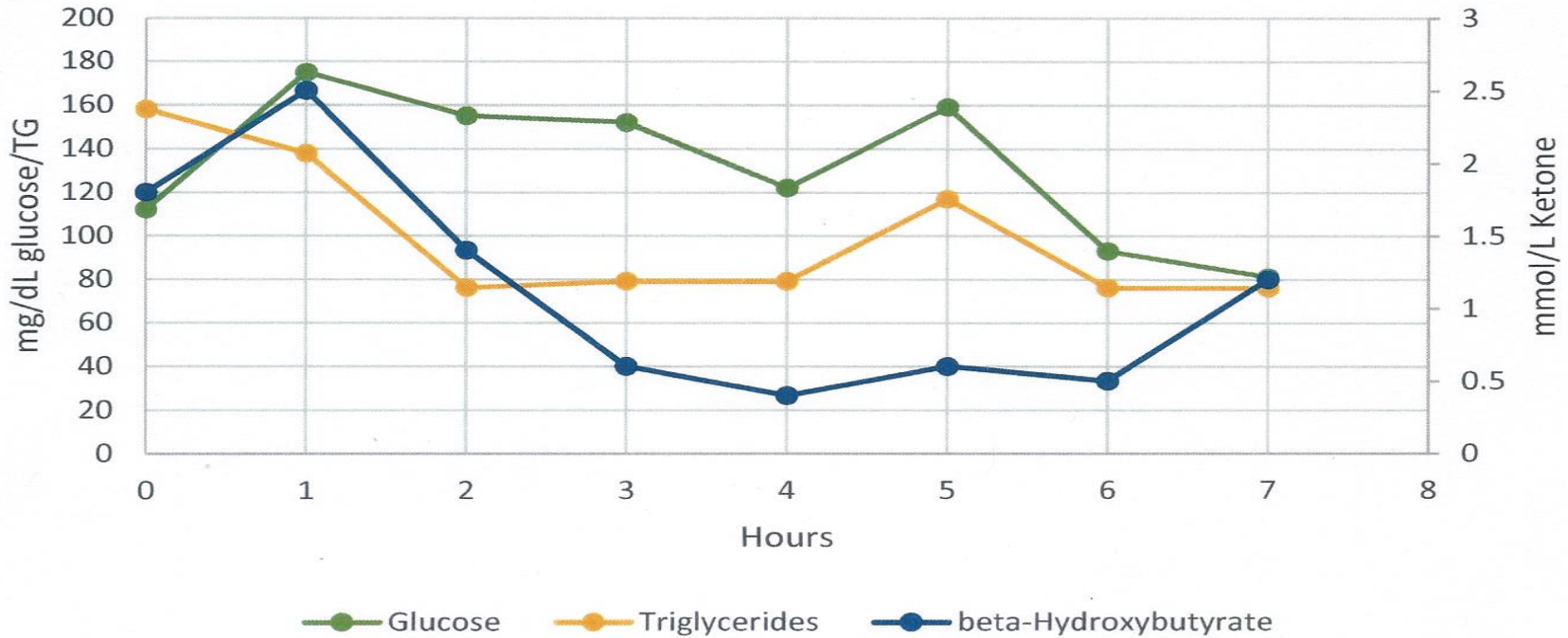
Rolled Oats

400 grams Whole Foods Rolled Oats



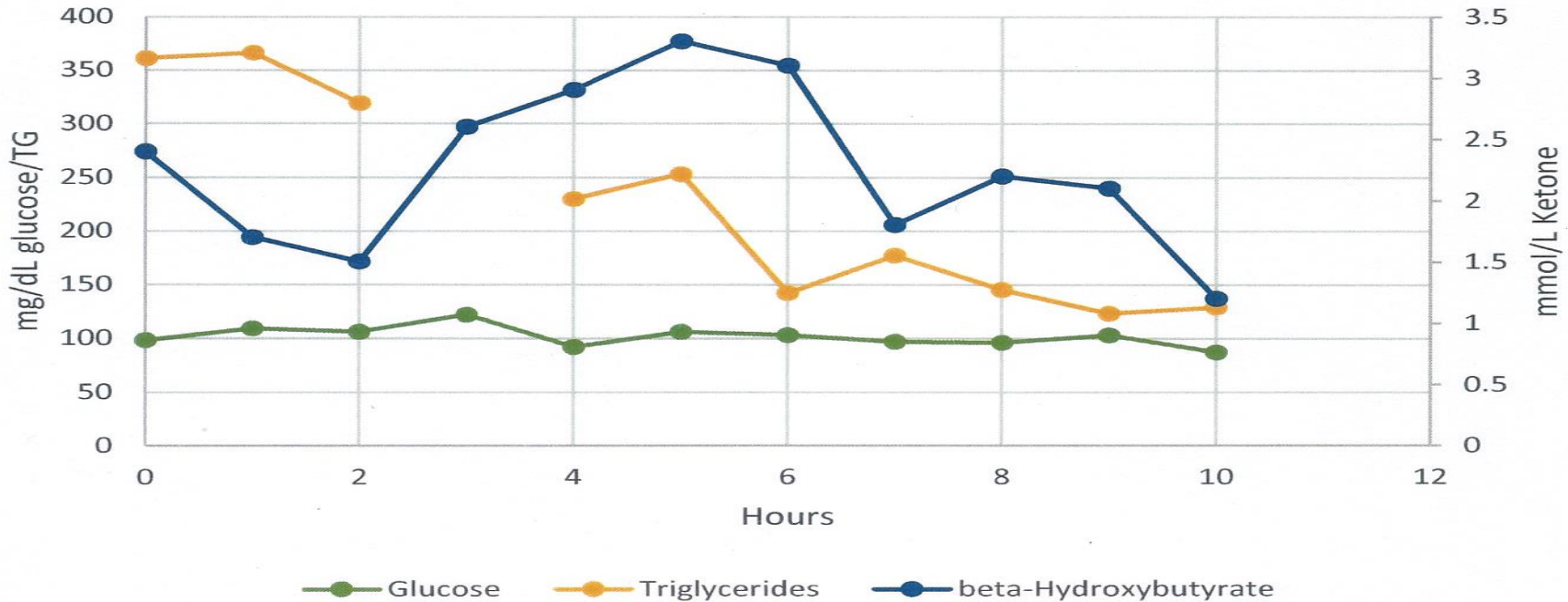
Oat Bran (soluble fiber)

200 grams Oat Bran



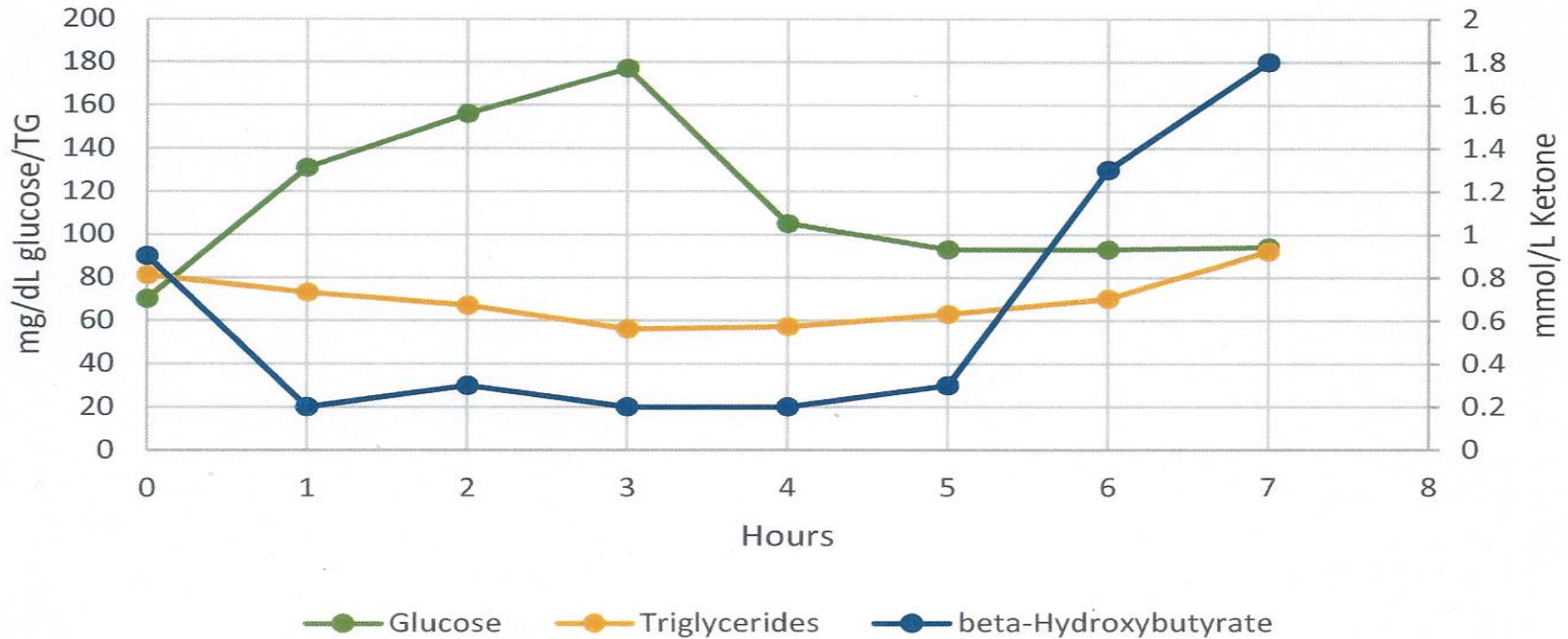
All-fiber (no starch) Noodles

400 grams Genki Allfiber Noodles



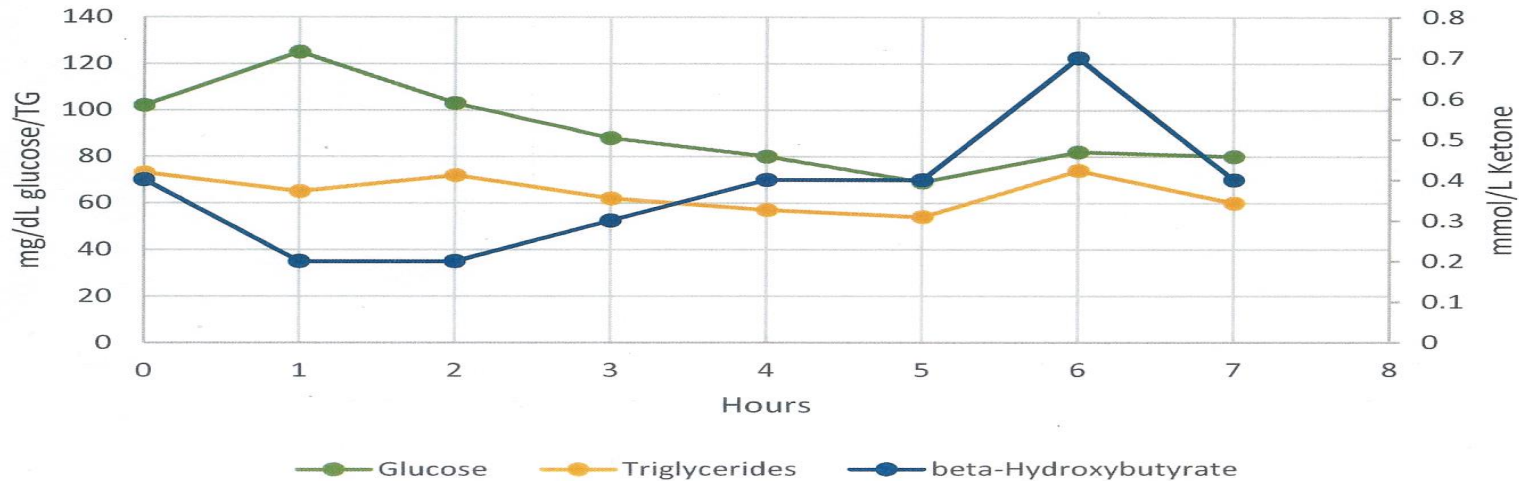
Tomato Paste

400 grams Trader Joe's Tomato Paste



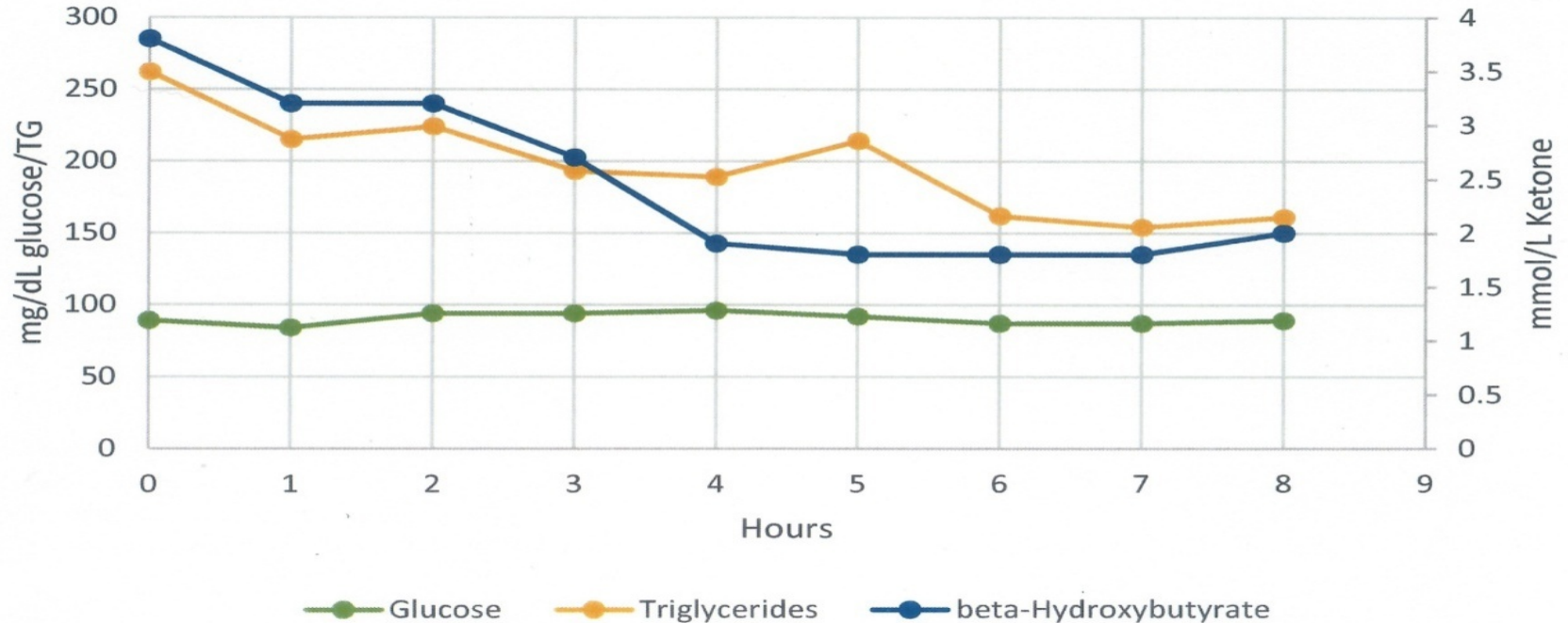
450 grams Allfiber noodles + 150 grams Tomato paste (600 grams total)

450 grams Genki Allfiber Noodles +
150 grams Organic Tomato Paste



Bagels without starch

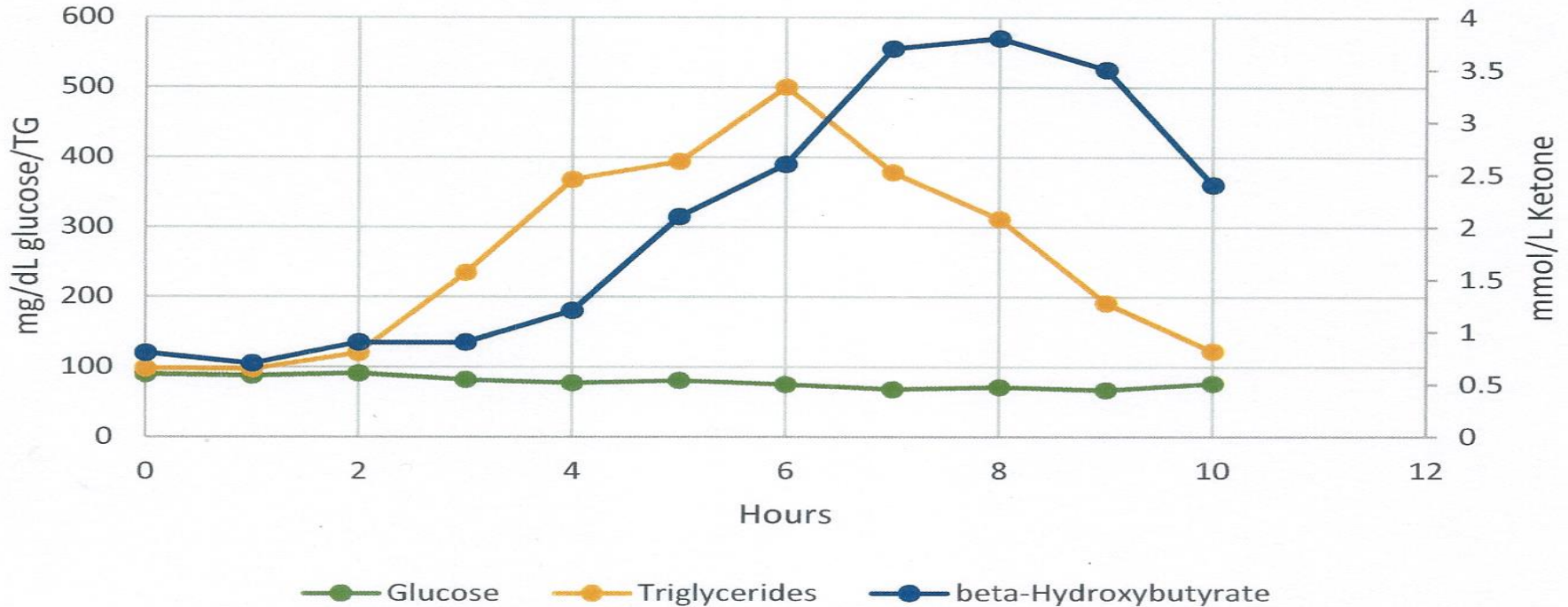
400 grams Fox Hill Kitchens Bagelz



FATS

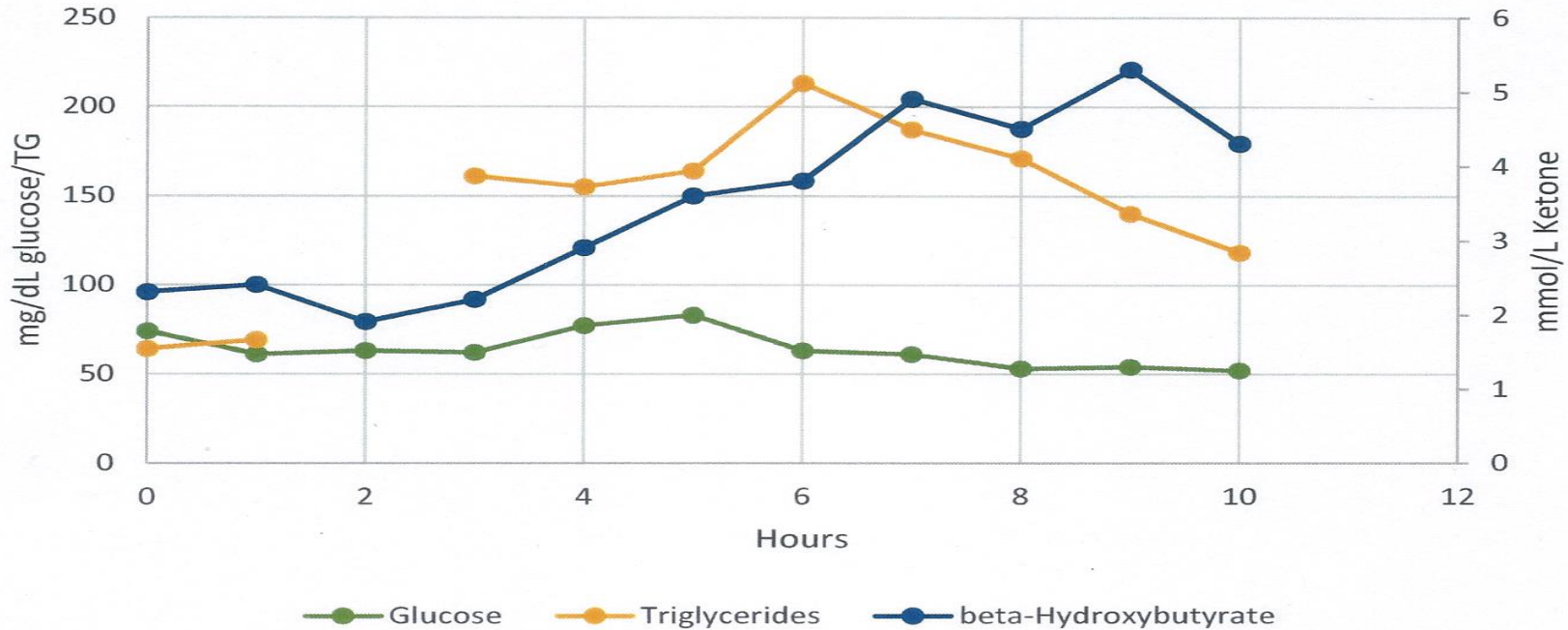
Organic Avocado

400 grams Organic Avocado



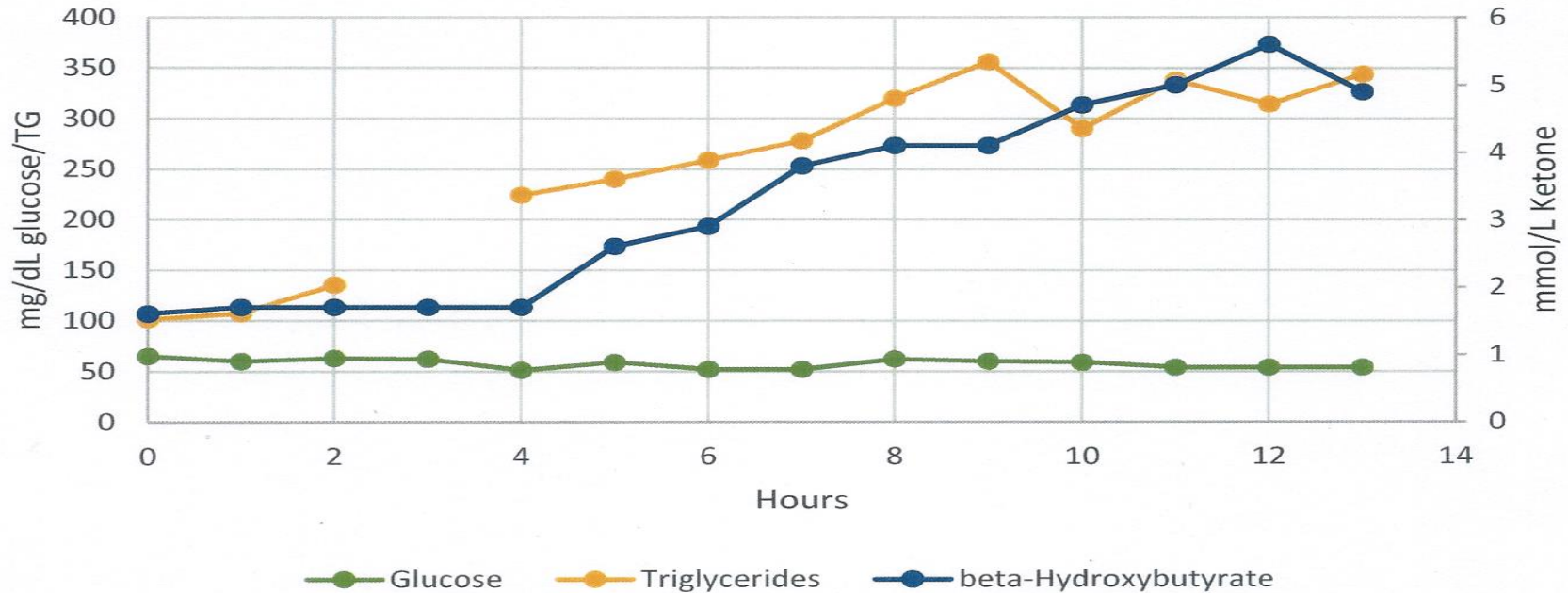
KerryGold Irish Butter

200 grams KerryGold Irish Butter



Organic Olive Oil (MUFA Oleic Acid)

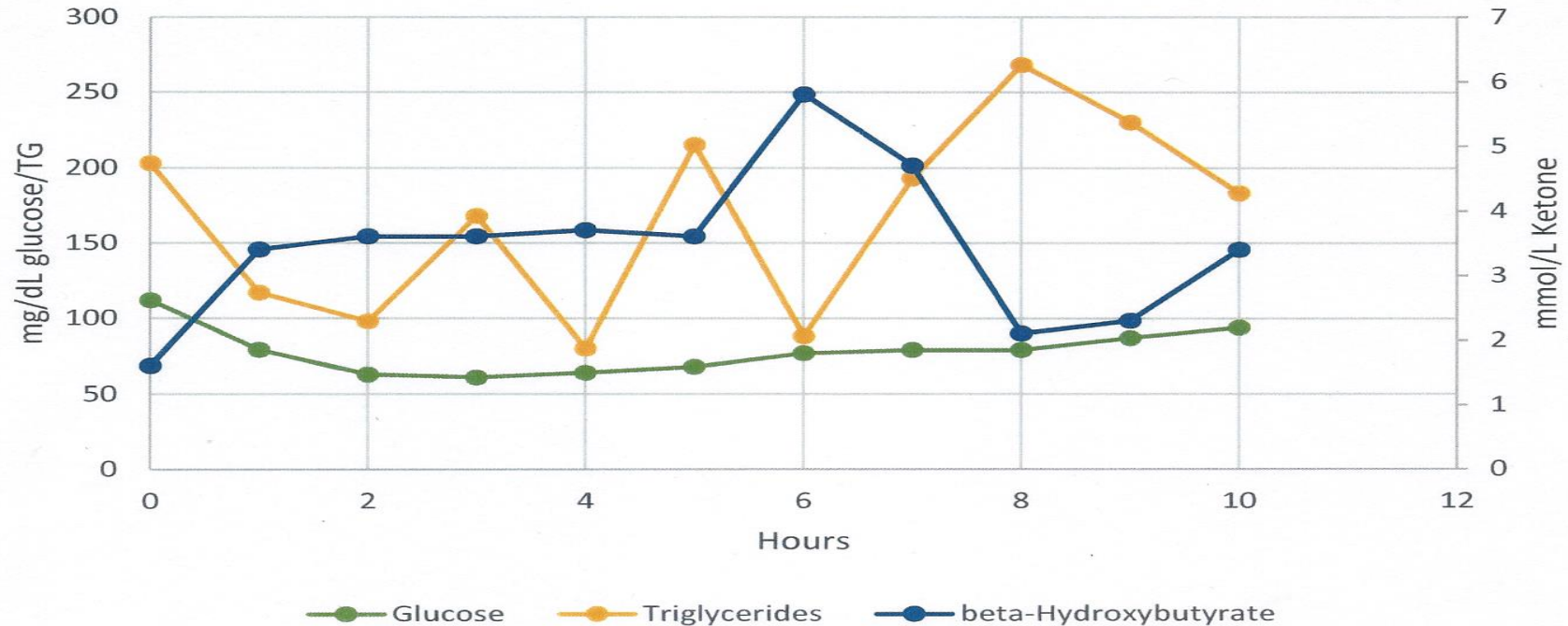
200 grams Whole Foods 365 Olive Oil



Norwegian Fish Oil

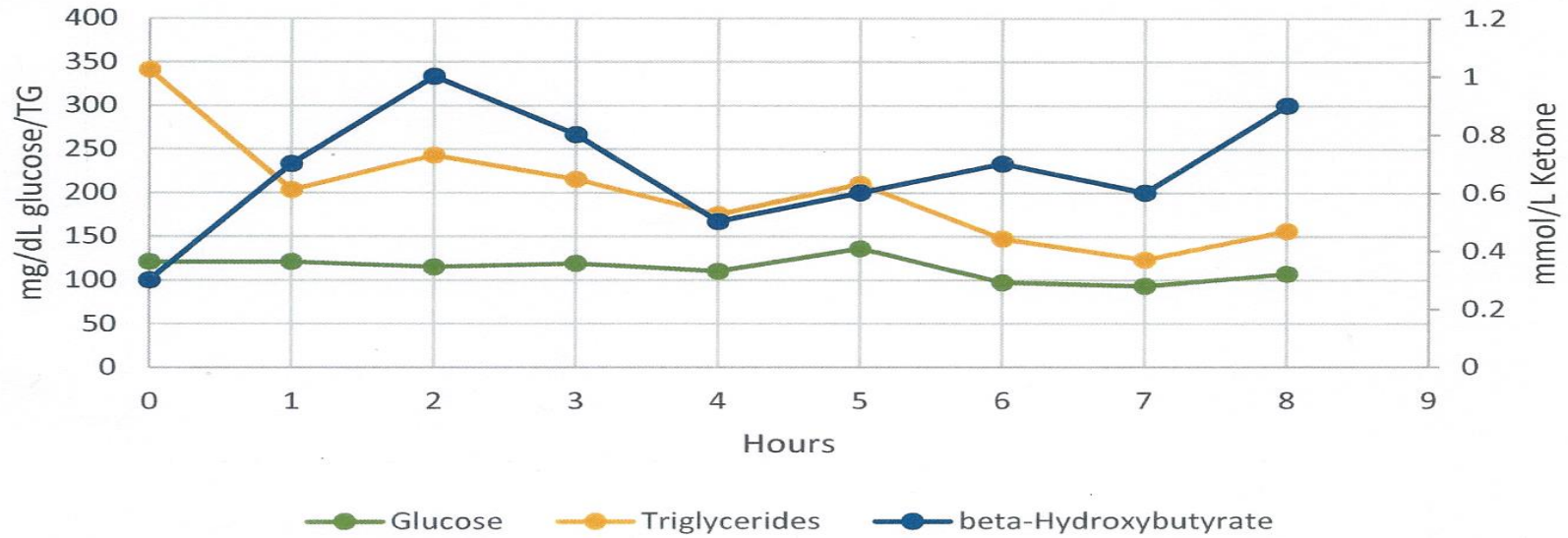
PUFAs: DHA and EPA

200 grams Norwegian Fish Oil



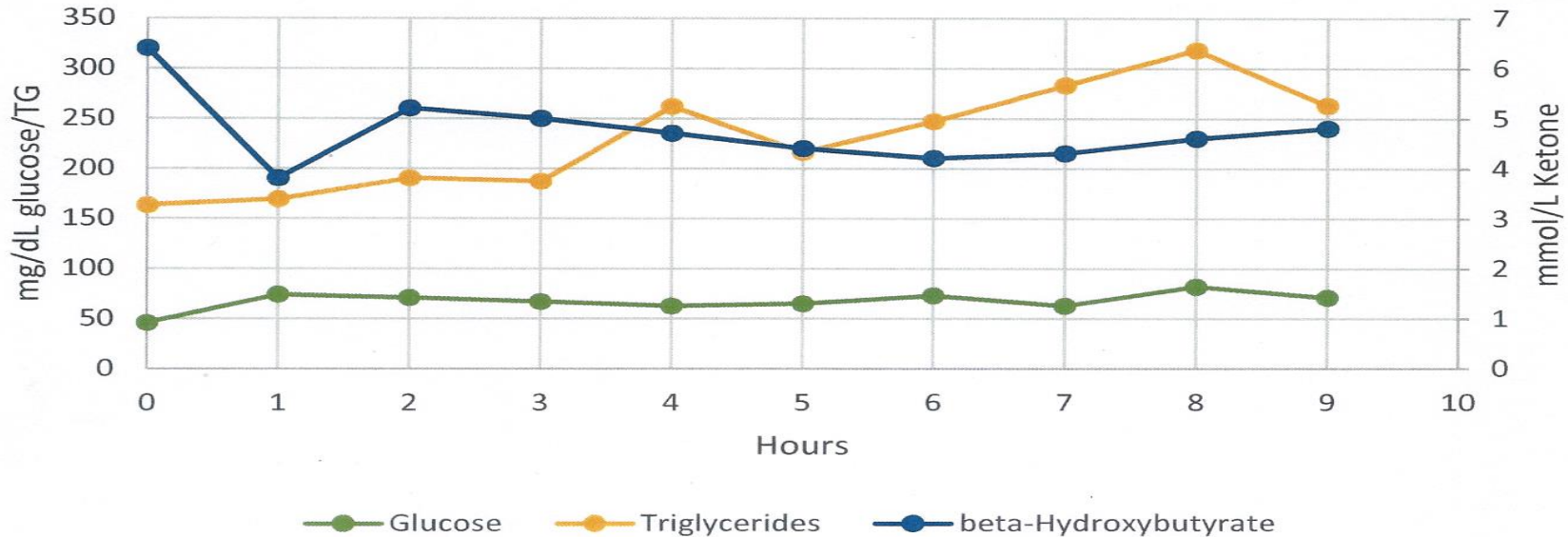
Sesame seeds, initial high glucose

300 grams Organic Sesame Seeds
(Initial High Glucose & TG)



Sesame seeds, initial low glucose

300 grams Organic Sesame Seeds
(Initial Low Glucose & TG)

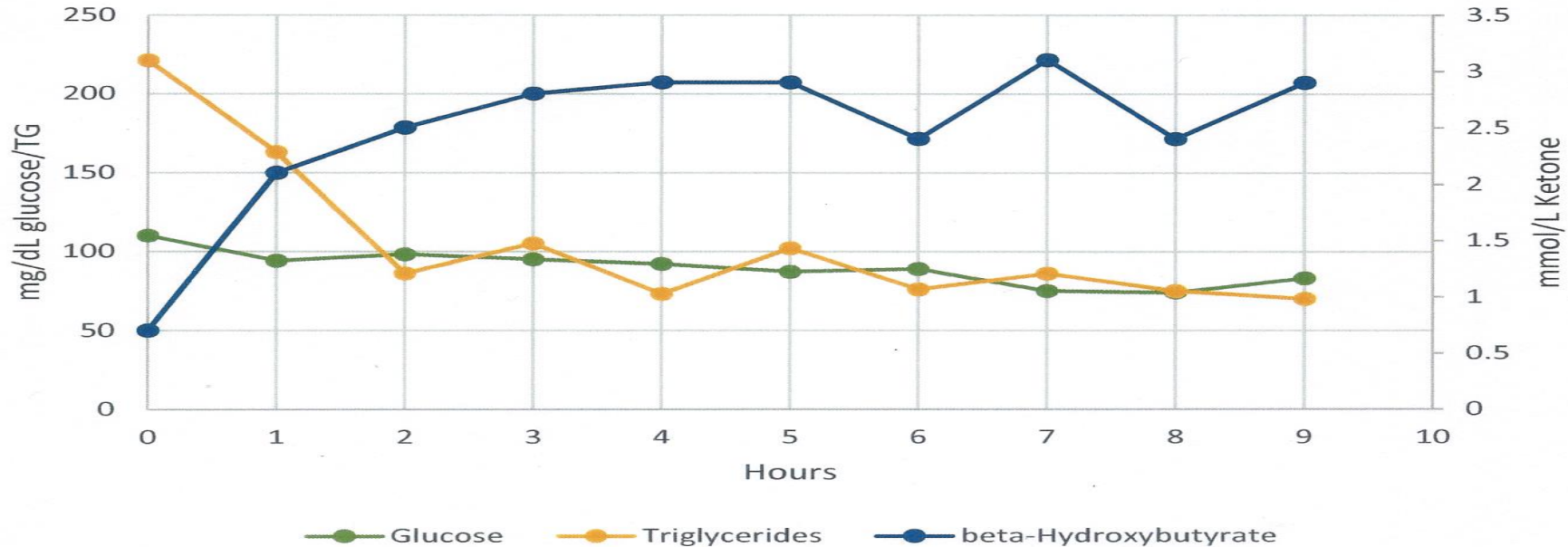


Zenwise MCT Oil

2/3 C8:0 Caprylic Acid

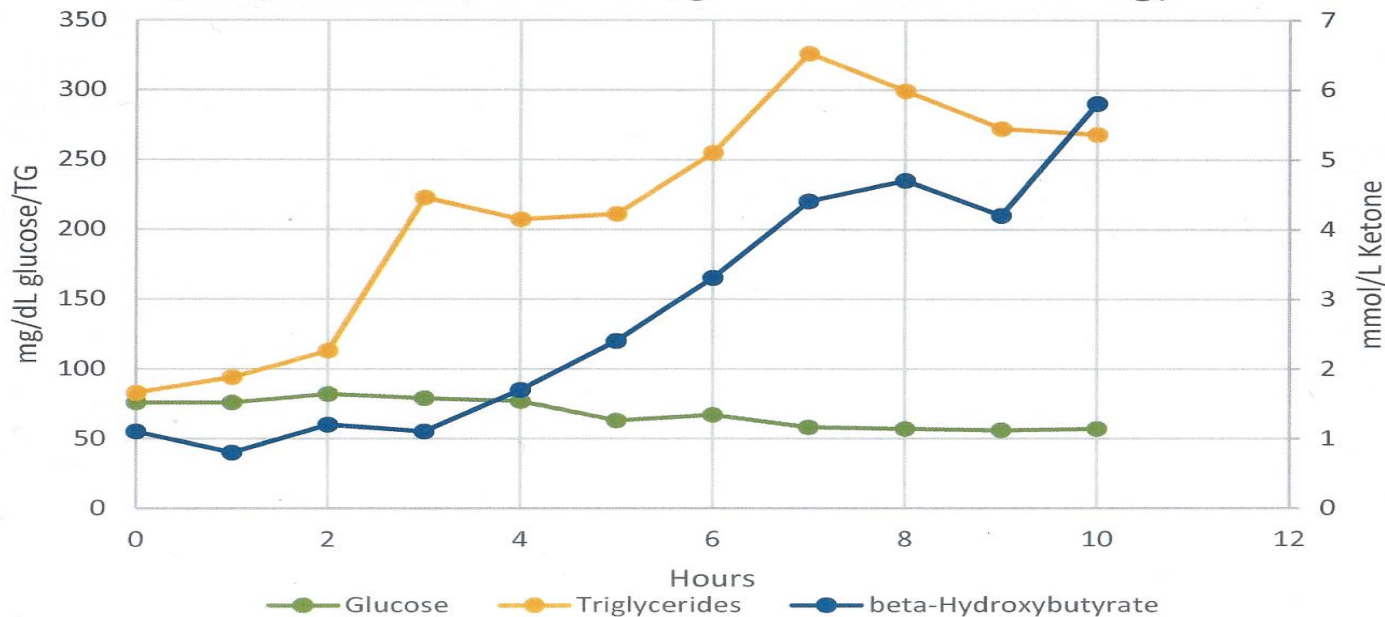
1/3 C10:0 Capric Acid

200 grams Zenwise MCT Oil



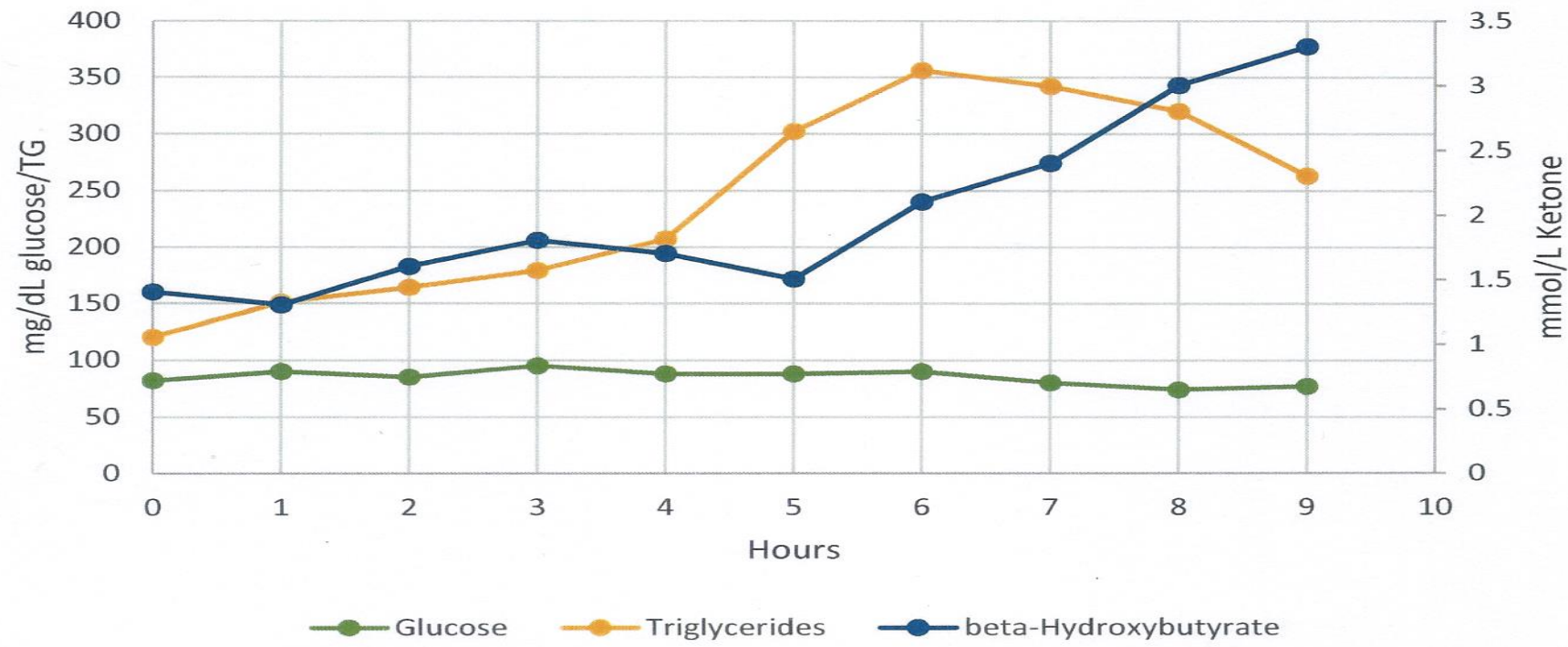
90 grams Broccoli, 75 grams Beet sprouts, plus oils

165 grams Broccoli & Beet Sprouts with 286 ml oils
(mayonnaise, olive oil, green salad dressing)



Organic Lactose-Free Cream Cheese

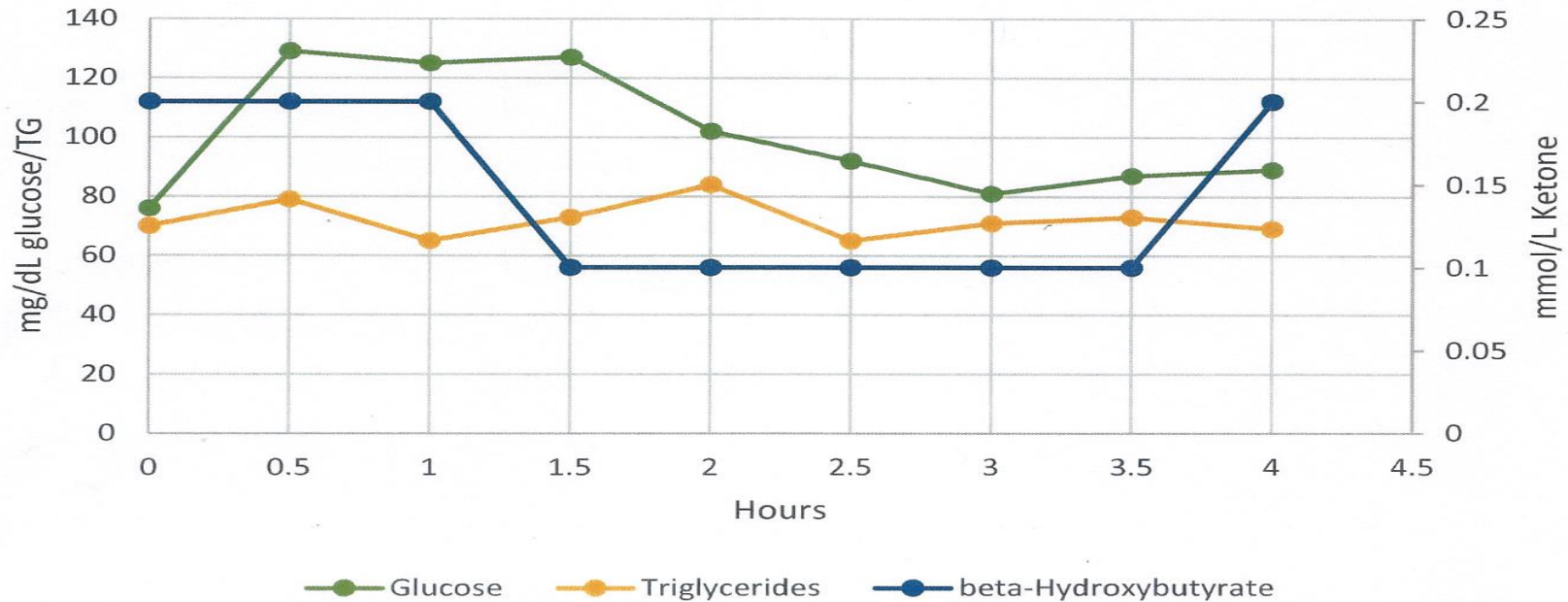
400 grams Lactose-Free Cream Cheese



LIQUIDS

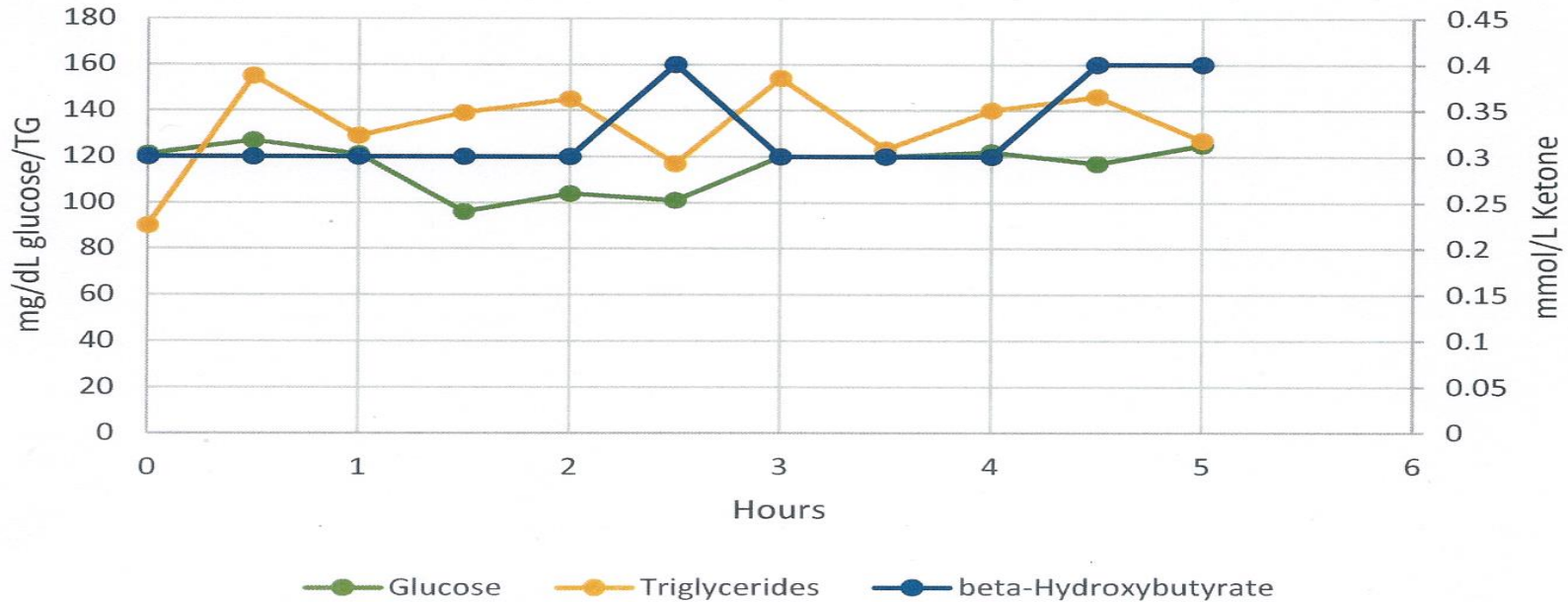
Campbell's V8 Juice

One liter Campbell's V8 Juice



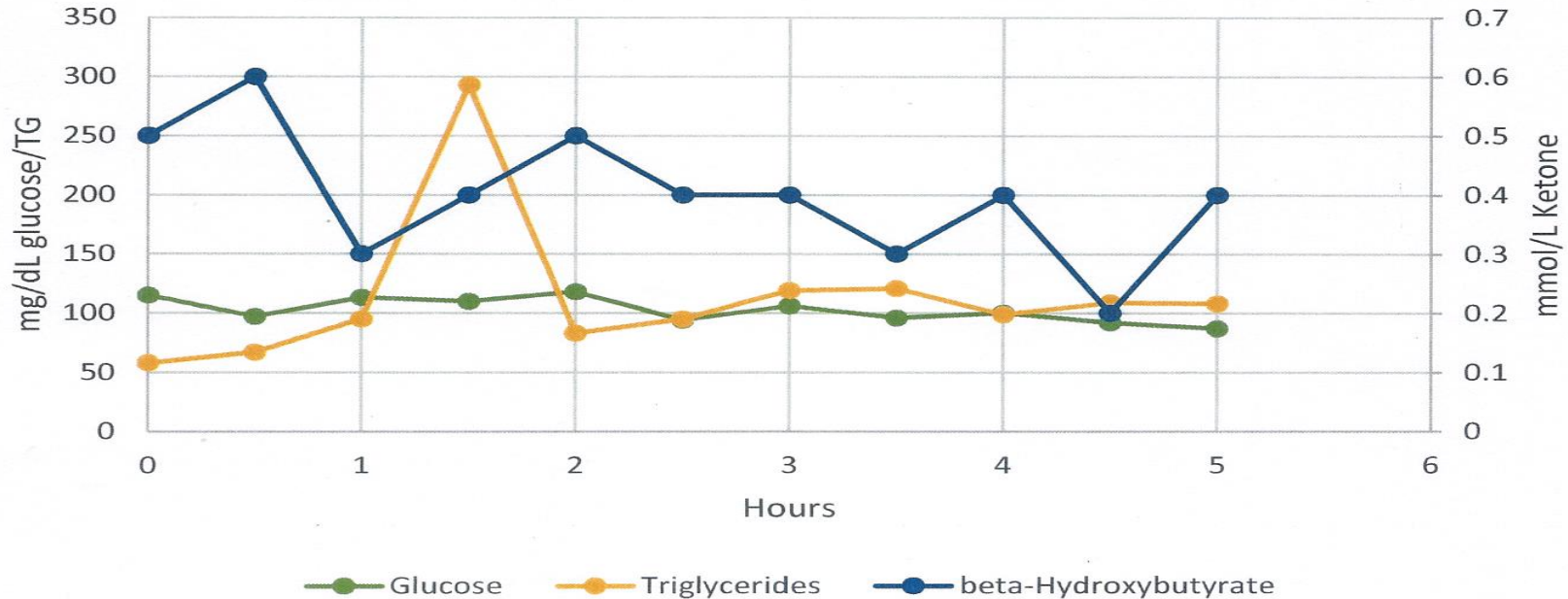
Soymilk

One liter unsweetened organic Soymilk



Flaxmilk

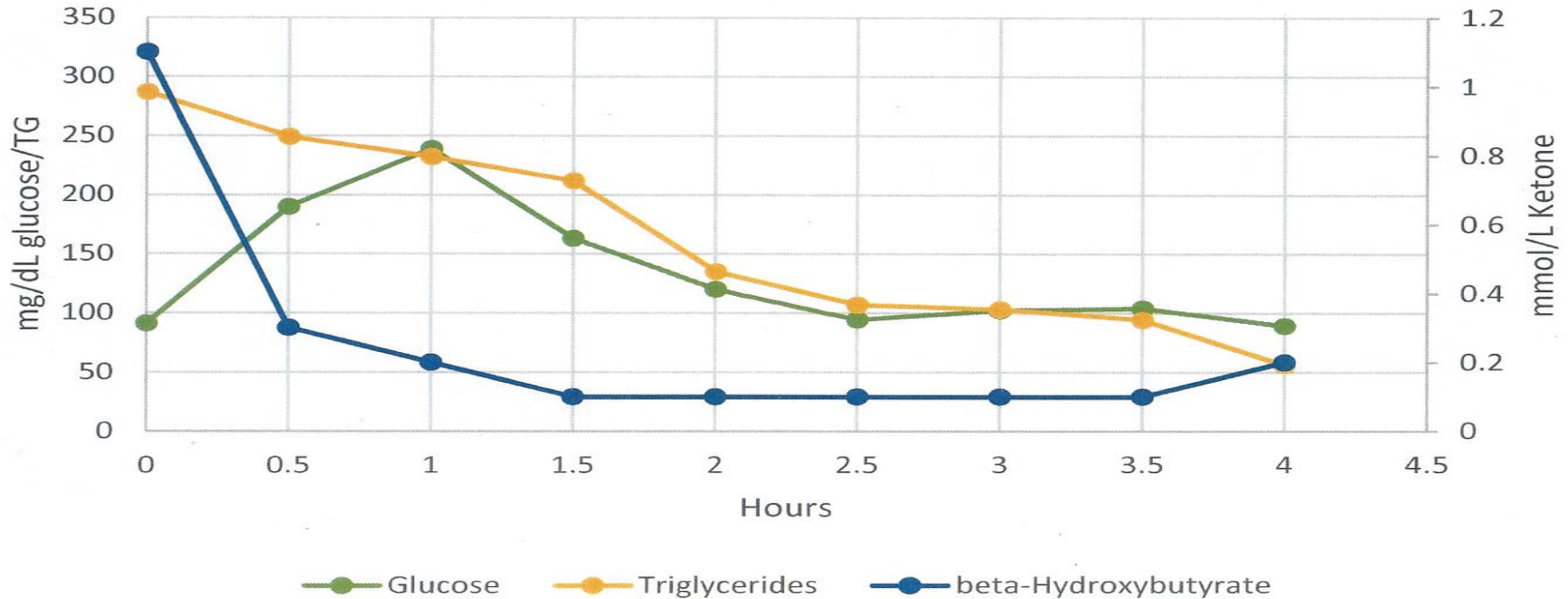
One liter unsweetened organic Flaxmilk



BERRIES

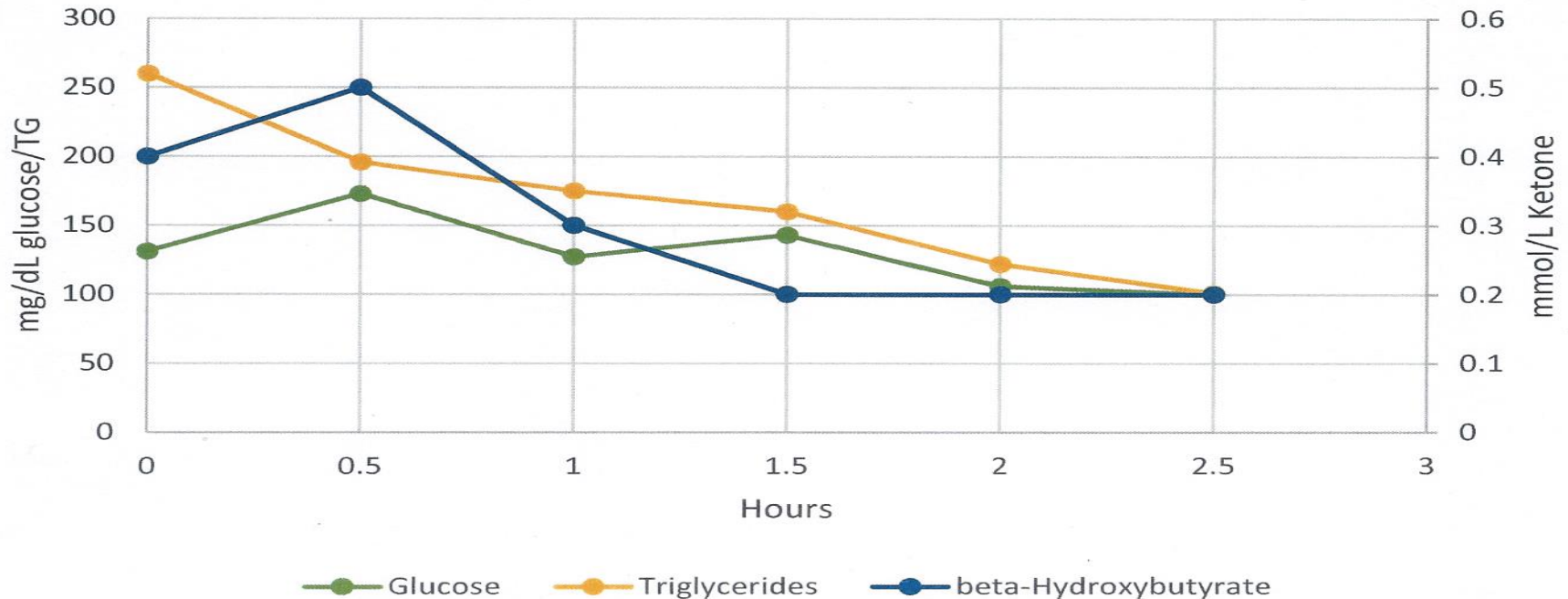
Blueberries

1,000 grams Blueberries



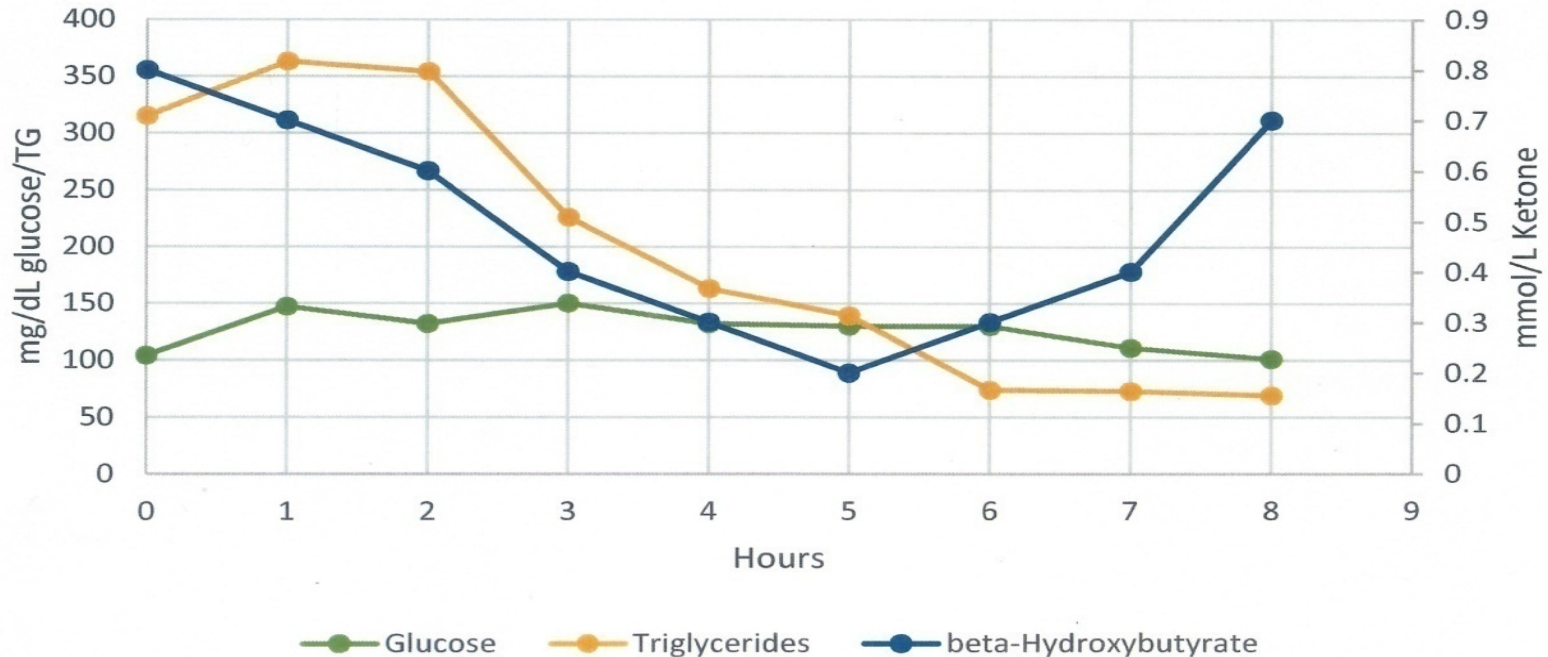
Strawberries

1,000 grams Strawberries



Unsweetened Dried Cranberries

150 grams Unsweetened Dried Cranberries



No lessons for changing my lifestyle from most tests

- EXERCISE: My responses not much different from those that have been much better studied by scientists
- MASSAGE: The triglyceride changes are unexplained, may or may not be unique to me, and may be a new discovery. Need more data.
- SLEEP: Cortisol (stress hormone) rises in the morning, making my responses harder to explain
- BATH: Does the testing process affect the result?
- FASTING
 - Glucose falls, and ketones rise with increasing time
 - Triglycerides rise after 3-4 days, then fall

Food testing provides the most lessons

- All grains greatly raise glucose, the effect usually lasting several hours
- Low starch, high-fiber noodles and breads do not raise blood glucose
- Fatty foods raise triglycerides and ketones, with TGs falling after 3 hours (with elevated ketones) for avocado, flax seed, and butter, but persisting for more hours for mayonnaise, sesame seed, and olive oil
- MCT oil raises ketones without raising TGs or glucose, but can be very unpalatable in doses over 100 grams
- Lactose-free cream cheese elevates TGs & ketones, but not glucose
- Flaxmilk has the best effect on blood values of beverages
- Strawberries raise blood glucose the least of the berries (except for cranberries), because of high water content
- Dried, unsweetened cranberries do not raise blood glucose, but are unpalatably acidic when eaten alone