

## The Carnivore Diet: Case Study

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*Editor's Note:* Dr. Tucker's [last article](#) (April issue, officially part 1), introduced the carnivore diet and discussed why some have touted it as an effective diet strategy.

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A 39-year-old male weighing 155.8 lbs and 74 inches tall decided to go on the carnivore diet as part of "personal experimentation" to see how he would feel and if he would like it. This diet entails eating "zero carbs," and plenty of animal meat and organs.

### Before Starting the Diet

Prior to going on the diet, when asked, "In general, how do you feel today?" he responded, "Really good." In my practice, this question is a predictor of health next year. Poor self-rated health correlates with risk of mortality, independent of age, sex, income, education, social networking, health behavior and chronic illness.

A bioelectrical impedance analysis (BIA) from a four-lead device was taken in my office prior to the diet, and again on days 20 and 28. A fourth BIA was taken 10 days after stopping the diet. The BIA is a noninvasive, rapid and safe technique for measuring human electrical tissue conductivity. With this method, the phase angle is determined, thereby reflecting the electrical integrity of the cell membrane. The BIA also measures body capacitance, resistance, reactance, lean body and fat mass distribution, and water compartments for hydration analysis.

Prior to starting the carnivore diet exclusively, the patient's exercise, sleep and diet were self-rated as "very good." He also stated that he "eats pretty clean, and I usually limit breads and sugar." He mostly eats "avocado, seafood, shellfish, eggs, nuts, fruits and vegetables." This patient is used to "cooking and making my own meals."

The carnivore diet recommends eating a lot of organs, and you either want to eat them raw or desiccated. The patient said: "Mentally, it was frustrating because I enjoy cooking and wanted to make food but most of the diet food is raw. I also had carbohydrate cravings, especially for sugar, that never really seemed to go away." He also stated: "It's not easy socially because you have to limit food on the program. It's not easy to eat out anywhere."

Prior to the diet, he had daily bowel movements. While on the carnivore diet, his bowel movements became every other day and about half the amount. He never mentioned diarrhea, but said he had feelings of constipation.

### While on the Diet

After being on the carnivore diet for approximately two weeks, the patient noted that his physical performance "didn't have much change." He said, "I was running two times a week and surprisingly felt pretty good on no carbs. Same with at home weight training. I didn't seem to get fatigued, but I wasn't doing high-intensity interval training (HIIT) workouts, either." The patient's training consisted of "running three miles, two times a week, at about an 8-minute-per-mile pace" and doing

at-home, full-body weight training.

Prior to going on the carnivore diet, the patient had made changes in his exercise program that improved his muscle strength and created muscle mass gains. Overall, his sleep "wasn't as good as it was before the diet."

The patient also kept a food diary while on the carnivore diet. Typical meals were: "About a pound of meat per meal ... organ meats 3x a week - liver, heart, kidney ... 1 pound ribeye for lunch; ½ beef + ½ chicken for dinner ... 1 pound of shrimp for lunch ... 4-5 eggs with meat or fish some meals. (I was using animal fats (tallow and pork lard) to cook with.) ... drinking about a gallon of water a day ... only salt and pepper - no herbs or spices."

*BIA Examination* (first, second, third test; the fourth number represents 10 days *after* the patient stopped the carnivore diet and resumed his normal eating):

- Phase angle: 7.9, 8.1, 7.4, 8.3
- Body cell mass (lbs.): 76.5, 73.2, 67.5, 74.3
- Extracellular mass (lbs.): 66.5, 63.7, 65.6, 63.4
- Lean body mass (lbs.): 143, 136.9, 133.1, 137.7
- Fat mass (lbs.): 12.8, 18.3, 23.1, 18.1
- Total weight (lbs.): 155.8, 155.2, 156.2, 155.8
- Basal metabolic rate: 2025, 1938, 1881, 1950
- Intracellular water (percent): 62.5, 63.2, 60.3, 63.6
- Extracellular water (percent): 37.5, 36.8, 39.7, 36.4

*Analysis:* As determined by the patient's subjective feelings and his BIA results, the carnivore diet was the contributing factor to lowered phase angle, sudden increase in fat mass, sudden loss of muscle, fatigue, change in bowel movements and sore tissue.

#### Outcome of 30-Day Trial

At the end of 30 days, his energy levels had reduced considerably. The constipation was mild, with a bowel movement once a day. Other subjective comments included the following: "Sleep was worse on diet. ... Workouts seemed fine, but overall energy was lower. .... Mentally draining with limiting food and eating boring meals. ... I am apoe4 3/4, so I heard I don't do well with saturated fats; not sure if this had anything to do with it. For the most part, I would say I follow Dr. Steven Gundry's food pyramid because of apoe4. ... "I was hoping after 30 days, I would have more energy and better sleep, and feel good mentally, but I felt like all of those things were slightly worse."

Originally, I suggested to the patient that he should self-monitor the way he feels and that I would monitor his BIA while on the diet. The patient did not go into the diet with a specific length of time to remain on it; however, at the end of 30 days, he discontinued the diet. My patient has shown in his experiment, his personal test tube, without a shadow of a doubt, that being on a 30-day "nose to tail diet" is not good for his phase angle (cellular health), lean muscle mass and fat mass. There is nothing else driving this equation.

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