



## Does the Carnivore Diet Justify Subsequent Research?

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The vast majority of people around the world are meat-eaters – and for good reason. Meat is an energy-dense source of protein that is typically available to consumers, and humans have developed an insatiable taste for it over the millenia. Most people, however, are omnivores who also eat a wide array of plant-based foods besides meat, both for variety and to ensure that they receive a balanced and healthy diet (Appleton, 2022). Nevertheless, anecdotal evidence suggests that growing numbers of consumers are advocating a carnivore diet that is comprised primarily of meat as the path to good health and an energetic lifestyle. Given the paucity of relevant research concerning the carnivore diet, it is important to determine whether this dietary alternative is a viable approach to achieving these outcomes. To this end, the purpose of this paper is to provide a review of the scholarly literature, mainstream media reports and the views of professional proponents and consumers concerning the carnivore diet to determine whether it lives up to its promises or if it represents a significant public health threat to those who pursue it. Following this review, the paper provides a summary of the research and important findings concerning the carnivore diet in the conclusion.

## **Review and Discussion**

### **Modern Humans and Meat Consumption**

Today, meat eating is the norm around the world, and the vast majority of humanity (>86%) reports including meat in their diets. This norm remains firmly in place despite the introduction of a growing number of plant-based meat substitutes and underscores the preferences that humans have for real meat products (Buchholz, 2021). Researchers believe that humans are “hard-wired” to prefer meat as a result of millenia of hunting and gathering the food products that were needed for survival. Compared to plant-based foods, meat packs a far more significant energy punch, and modern humans’ preferences for meat are readily understandable. In fact, a significant majority (>80%) of consumers in most countries report including some meat in their diets, and consumers in just five nations (e.g., Pakistan, China, the United Arab Emirates, and India) report fewer than 80% (Buchholz, 2021).

There is also an interesting and noteworthy connection between affluence and meat eating, with consumers in more affluent countries eating more meat than their counterparts in impoverished nations. Furthermore, because the income levels of the majority of the world’s population is gradually increasing, so too are meat-consumption levels around the world. In fact, more than 333 million tons of meat products were produced globally in 2020 alone in response to increasing demand (Buchholz, 2021). Despite some religious prohibitions against eating pork in many parts of the world, the U.S.

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Department of Agriculture reports that pork, at 36%, is still the most commonly consumed meat in the world today, followed closely by poultry products at 33%, beef at 24% and goats and/or sheep at 5% (What is the most consumed meat in the world?, 2019).

It is noteworthy that although fish are technically considered meat since it is the flesh of an animal that is used for food, some religions do not regard fish as meat, fish differs from the above-listed meat types by virtue of their potential health benefits and nutritional profiles and many authorities define meat as coming from warm-blooded animals only (Link, 2019). Nevertheless, even excluding fish products, it is clear that humans like meat – a lot – and it is therefore not surprising that some consumers have taken this preference to an extreme by eating only meat (or mostly only meat) in what has been termed “the carnivore diet.” In this regard, Buchholz concludes that, “High-protein diets are all the rage, but one outdoes all the rest. It’s aptly named the carnivore diet, and it focuses on meat, just meat. If that sounds questionable from a health perspective, that’s because it is” (para. 7). To determine the facts about this issue, the next section examines the various reasons why such a meat-only diet is questionable from a healthy lifestyle perspective.

### **An Overview of the Carnivore Diet**

Modern humans come by their love of meat honestly with a legacy that dates to antiquity. For example, according to Storey (2020), “Of course, we have our prehistoric friends to thank for first introducing us to the carnivore diet. Australopithecus, which is said to have roamed the earth four million years ago, was probably the first to start eating mostly meat for its food” (para. 3). Modern researchers emphasize that any energy-rich food source such as fruit or nuts would satisfy this need, but it turns out that meat was far more plentiful and comparatively easy to obtain for humanity’s ancient ancestors. In this regard, Modern researchers also stress that the switch to a meat-based diet helped paleolithic peoples survive a staggeringly hostile environment, thereby ensuring that humanity survived long enough to enjoy the luxury of having an informed debate over the optimal healthy diet today (Storey, 2020).

Notwithstanding some scientific and anecdotal evidence concerning the potential health-related benefits of the high-protein diet and endorsements from a small number of high-profile celebrities and social media influencers, including most especially podcaster Joe Rogan, many researchers have questioned the health benefits of the all-meat carnivore diet (Streit, 2019). While consumers may include some fruits and vegetables in a carnivore diet on occasion, the primary focus of the carnivore diet is on consuming meat products to the exclusion of everything else. For example, according to

Migala (2022), “In January 2022, Rogan announced on Instagram that in honor of World Carnivore Month, he would eat only meat and fruit (the latter is not officially part of the diet)” (para. 3). Unlike keto-based diets that allow some plant-based foods on a routine basis, the carnivore diet excludes these foods to the maximum extent possible. For instance, according to the definition provided by O’Hearn (2020), “A carnivore diet is a newly popular, but as yet sparsely studied form of ketogenic diet in which plant foods are eliminated such that all, or almost all, nutrition derives from animal sourced foods” (p. 312).

The carnivore diet differs from other types of high-protein diets in that it excludes all carbohydrates and includes only those products that “either walked, swam, or flew” (Migala, 2022, para. 4). Likewise, the carnivore diet differs from the so-called “caveman diet” which places a priority on consuming fresh fruits and vegetables as well as organically produced meat products while excluding grains, legumes, sugars and dairy products (Migala, 2022). Rather than being yet another flash-in-the-pan fad diet, the carnivore diet appears to have some staying power by virtue of its purported benefits for the immune system and as a graduation from other alternative diets that failed to deliver on their promises. For instance, Migala (2022) points out that, “Most people who try the diet are motivated by a strong desire to lose weight or to address an autoimmune condition. The carnivore diet is often a step people take after trying the paleo diet or the ketogenic diet” (para. 7). Despite its growing popularity over the past several years, there is a paucity of timely and relevant research concerning the potential health benefits and risks that are associated with the carnivore diet and these issues are discussed further below.

### **Peer-Reviewed Research into the Carnivore Diet**

Lennerz et al. (2021) used self-reports from consumers who used the carnivore diet which is a less rigorous form of primary research. Nevertheless, this type of seminal research does provide a benchmark and starting point for the design and administration of more comprehensive studies to evaluate the efficacy and healthiness of a carnivore diet which is essential at this point given the dearth of other timely studies, at the current time. For instance, according to Lennerz et al. (2021), “The ‘carnivore diet,’ based on animal foods and excluding most or all plant foods, has attracted recent popular attention. However, little is known about the health effects and tolerability of this diet, and concerns for nutrient deficiencies and cardiovascular disease risk have been raised” (p. 2).

In response to this gap, Lennerz et al. (2021) collected descriptive data concerning the health status and nutritional practices of 2,029 respondents who self-identified as currently using the carnivore diet (the sample was two-thirds male with a median age of 44 years) using a social media survey. The

survey was administered for a 4-month period ending in June 2020 and the findings that emerged from the study were significant notwithstanding the above-described caveats. The survey questions focused on the primary motivation factors for using the carnivore diet, typical dietary intake patterns, any side effects that were indicative of nutritional deficiencies or otherwise, respondent satisfaction levels with the diet, any previous and current health issues as well as anthropometric and laboratory data (Lennerz et al., 2021). Fully 85% of the respondents reported eating red meat on a daily or more frequent basis (i.e., more than one red meat meal per day).

In addition, in keeping with the main tenets of the carnivore diet, fewer than 10% of the respondents reported not eating any fruits, vegetables or grain products more frequently than once a month. More than a third (37%) of the respondents also reported not using any type of vitamin supplements as part of their carnivore diet regimen. Although some respondents reported experiencing some gastrointestinal issues or muscular and dermatological problems during the first few days of their carnivore diet, these reports were rare (between 1% and 5.5%) (Lennerz et al., 2021).

The overall findings that emerged from this seminal study were surprising, even to the principal researchers. For example, among other positive results, a majority of the respondents (95%) reported experiencing high levels of improvements in their health and general satisfaction, wellbeing (66%-91%) and improvements with other medical conditions (48%-98%). Further, respondents' median BMI decreased from a median of 27.2 to 24.3 (in kg/m<sup>2</sup>). In addition, of the respondents self-reporting to be suffering from diabetes, between 84% and 100% reported experiencing a decrease in the amount of diabetes medicine they needed to take on a regular basis.

Based on these findings, the authors conclude that, "Contrary to common expectations, adults consuming a carnivore diet experienced few adverse effects and instead reported health benefits and high satisfaction" (Lennerz et al., 2021, p. 7). Like all good researchers, Lennerz and his associates also call for additional research in this area using more rigorous clinical studies. Besides this peer-reviewed journal article, there have been tens of thousands of consumers reporting their results with the carnivore diet on various social media platforms and these are discussed below.

### **Anecdotal and Empirical Evidence in Support of the Carnivore Diet**

The profound impact that the ongoing Covid-19 pandemic has exerted on the American psyche has resulted in a concomitant increase in interest in identifying effective strategies to boost the body's immune system. This growing interest has translated into a groundswell of new adherents to the carnivore diet based in large part on its purported beneficial effects on the immune system. To learn

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[www.medicalandresearch.com](http://www.medicalandresearch.com) (pg. 5)

more about the most recent self-reports concerning the benefits and/or negative side effects of the carnivore diet, a representative sampling of the most viewed videos from the most prominent physician on YouTube, Dr. Ken D. Berry with 2.3 million subscribers, and from Dr. Shawn Baker, with 203,000 subscribers were conducted and the results are excerpted in Table 1 below.

Source	Excerpted Comments from Viewers/ clients
<p>“Carnivore Diet (Beginner's Guide) All You Need to Get Started (2022). 1,502,292 views (6,721 comments) Dr. Berry: Thousands of people, and many previous cultures, have used a Carnivore Diet to improve their health. The Carnivore Diet is nutrient-dense and un-inflammatory, it will give you better physical and mental health. There is no calorie counting or portion control. Shawn Baker: “Animal protein is one of the most powerful tools that can help anyone reach and maintain a healthy body and that by simplifying our</p>	<p>I've been carnivore for exactly 3 months now. What has happened: pain &amp; inflammation in my hands that I had every morning, gone. Bloating, gone. Being mentally hungry all damn day, gone. Hot flashes, gone. 13 lbs &amp; I don't know how many inches (I keep having to take in clothes) gone. And as of yesterday I learned from my Dr that my Graves disease is gone, so no more meds. Carnivore is legit. Carnivore for life!</p> <p>I'm a 68 year old woman and I have lots of joint pain especially in my knees and I'm over weight. I read your book and started carnivore just 3 days ago and some of my pain is dissipating already! I'm so glad I found you and can watch your videos. God bless you! Gradually became carnivore over the past few months and feeling better each day - lost weight I wasn't able to shed for years. More energy, and much calmer. Thank you Dr. Berry - you're saving lives. I'm 71 and was on BP meds for 30 years. After eating Carnivore for 9 months I am off all meds and feel great!</p> <p>it!!!</p> <p>I am completely free of all pharmaceuticals, including Effexor, I am hormone free and drug free. Since going Carnivore, I've watched every single one of my Lyme Disease symptoms for the last 15-years completely go away. I began this way of eating 15-months ago and I was on about 13- medications for everything from mental disorders such as Bi-Polar with Mania and Generalized Anxiety Disorder PTSD and what they called Fibromyalgia, chronic pain and Hypothyroidism,</p>

Source	Excerpted Comments from Viewers/ clients
diets, we can all achieve peak physical performance”	Lymphedema of my left leg and [Type 2 Diabetes]. I was on a plethora of medications, I still have a long way to go, [but I’ve lost 89-pounds], and I only use an asthma inhaler and a [blood pressure] medication and I hope to come off those.

**Table 1** Recent Self-Reported Results from Using the Carnivore Diet

Finally, a summary of representative current headlines and news reports about the carnivore diet appearing in Google News (a search of Google revealed 1,120,000 matching results for this topic) which reflects current healthcare practitioner and consumer interest in this topic is presented in Table 2 below.

Source	Results
Gabby Landsverk (2022, May 28) Business Insider	Forget keto: The carnivore diet is the next big thing for people looking to cut out carbs and processed foods [but] no one knows the long-term health outcomes. People who only eat meat say the diet boosts their mood, fitness, and weight loss. Some experts are skeptical about the anecdotal benefits because of a lack of long-term evidence to support them. Meat can be a rich source of nutrients, but cutting out all plants may have trade-offs for mental and physical health.
Talene Appleton (2022, April 20) The Food Institute	Analysis: What Exactly is the Carnivore Diet? Quality meat products do provide nutrition such as protein and fat, but it’s clear that a carnivore diet cannot supply all essential nutrients. Vegetables, fruits, grains, nuts and seeds are all characterized by a valuable make-up of phytonutrients necessary for nutritional adequacy, which meat alone can’t provide.
Kyle Mackie (2022, October 29) The Conversation	What is the ‘carnivore diet’ and is it a bad idea? Many diet trends, such as the paleo and Atkins diets, advocate high protein and low carbohydrate intake. But the carnivore diet takes this trend to the extreme. Unless your diet is very well planned, eating only animal meat could lead to insufficient intake of certain vitamins and minerals. This is especially the case with vitamin C and folate, where the main

Source	Results
	food sources are fruits, vegetables and wholegrains. Importantly, dietary fiber is noticeably absent from a carnivore diet. This is a problem because a low-fiber diet can increase your risk of diabetes, heart disease and some cancers. Most evidence for benefits of this diet is anecdotal – based on personal experiences, rather than scientific evidence
Gabrielle Fundaro (2022, July 28) BarBend	What The Science Says About the Carnivore Diet. Proponents of the carnivore diet claim that its tenets are supported by substantial evidence, but the fact is that research on the carnivore diet specifically — and its relevance to strength athletes or recreational lifters — is scant.

**Table 2** Current Headlines and News Reports about the Carnivore Diet

## Conclusion

For generations of North American consumers who have been raised to believe in the value of the food pyramid and eating a balanced diet, the notion of an all-meat diet may seem absurd and even heretical. Modern North Americans have heard the relentless mantra to “eat a balanced diet” all their lives, and making substantive changes to this mindset will not be easy. Even though researchers may not yet know the precise reasons for all of the self-reported health benefits from the carnivore diet, the research was consistent in showing that many consumers self-report significant health benefits from the carnivore diet, that warrant further study.

## References

1. Appleton, T. (2022, April 26). Analysis: What Exactly is the Carnivore Diet? The Food Institute. Retrieved from <https://foodinstitute.com/focus/analysis-what-exactly-is-the-carnivore-diet/>.
2. Buchholz, K. (2021, May 20). Statista. Retrieved from <https://www.statista.com/chart/24899/meat-consumption-by-country/>.

3. Lennerz, B. S., Mey, J. T., Henn, O. H., & Ludwig, D. S. (2021). Behavioral Characteristics and Self-Reported Health Status among 2029 Adults Consuming a “Carnivore Diet.” *Current Developments in Nutrition*, 5(12), 1–10.
4. Migala, J. (2022, June 2). On the Carnivore Diet, People Are Eating Only Meat: Here’s What to Know. *Everyday Health*. Retrieved from <https://www.everydayhealth.com/diet-nutrition/diet/carnivore-diet-benefits-risks-food-list-more/>.
5. O’Hearn, A. (2020). Can a carnivore diet provide all essential nutrients? *Current Opinion in Endocrinology, Diabetes, and Obesity*, 27(5), 312–316.
6. Storey, A. (2020, May 7). Who Invented the Carnivore Diet and When? *Carnivore Diet Information*. *Wild Lumens*. Retrieved from <https://wildlumens.com/who-invented-the-carnivore-diet-and-when-carnivore-diet-information/>.
7. Streit, L. (2019, August 26). All You Need to Know About the Carnivore (All-Meat) Diet. *HealthLine*. Retrieved from <https://www.healthline.com/nutrition/carnivore-diet>.
8. What is the most consumed meat in the world? (2019, July 17). U.S. Department of Agriculture. Retrieved from [https://ask.usda.gov/s/article/What-is-the-most-consumed-meat-in-the-world#:~:text=According%20to%20the%20United%20Nations,goats%2Fsheep%20\(5%25\)](https://ask.usda.gov/s/article/What-is-the-most-consumed-meat-in-the-world#:~:text=According%20to%20the%20United%20Nations,goats%2Fsheep%20(5%25).).



