CARNIVORE



SHAWN BAKER, MD

SHIFT THE PARADIGM ON NUTRITION

Shawn Baker's carnivore diet is a revolutionary, paradigm-breaking nutritional strategy that takes contemporary dietary theory and turns it on its ear. This diet breaks just about all the "rules" and delivers outstanding results that address common chronic issues, such as prediabetes and type 2 diabetes, anxiety and depression, PCOS, arthritis, and many other ailments of our modern world. At the heart of the diet is a focus on subtraction rather than addition, which makes this an incredibly effective and easy-to-follow nutritional plan.

The Carnivore Diet reviews some of the supporting evolutionary, historical, and nutritional science that gives us clues about why so many people are having great success with this meat-focused way of eating. It highlights dramatic real-world transformations experienced by people of all types. This diet often reverses common disease conditions that have a reputation for being lifelong and progressive. Dr. Baker discusses some of the theory behind that phenomenon and outlines a strategy for incorporating the carnivore diet into your life as a tool to improve your health or as an ongoing eating style. He offers a thorough discussion of the most common misconceptions about this diet, pitfalls some people face when transitioning to it, and solutions for overcoming those challenges.



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INTRODUCTION

If you would have asked me five years ago if I had plans to write a book, especially a silly diet book, I'd have said you were crazy. Well, here I am, writing a diet book and turning all the nutritional advice we've been following for at least 100 years on its ear.

This book will undoubtedly piss off a lot of people. Ethical vegans will hate it, but that's not surprising; I endorse eating meat—lots of meat. Nutritional scientists will feel threatened by it because its advice runs counter to the conventional wisdom we've been adhering to for a century, and they will decry the lack of rigorous studies on the topic. The people who will be the angriest, though, are the people who decide to adopt the carnivore diet and then find out all the stuff they've been force-fed over the years was complete garbage.

As you start to read this book, you might have doubts. The carnivore diet? What the hell? How can anyone possibly think eating a bunch of meat is anything but bad for one's health and even worse for the planet? That's certainly the message that we've heard for several generations. But here's the thing: That message has largely been unquestioned until now, and there's no real evidence to back up the claim that eating lots of meat is bad for your health.

For the last two and a half years, I've been wholly carnivorous. I haven't had a single vegetable or piece of fruit. I've had zero whole grains and not a gram of fiber. No phytonutrients or plant antioxidants have crossed my lips. Despite not eating these things, I haven't died or gotten sick. In fact, my health has been the best it's ever been. The issues that I assumed were a natural consequence of aging began to disappear. My athletic performance dramatically improved to the point that I was able to break three world records in rowing and saw my strength significantly improve.

My goal with this book is not to convince the entire world that a carnivore diet is what we all need to consume. I'm actually a bit worried that if too many people adopt this eating style, they'll cut into my supply of juicy rib-eye steaks. However, I do feel compelled to make people aware of this option and the success that many have had with this approach.

People make many assumptions about nutrition that are more firmly rooted in belief than in sound evidence. Consequently, we've seen unending attempts over the years to tailor knowledge and data to fit those deeply held beliefs. When trials produce results that run counter to those beliefs, they're dismissed and discounted. Fortunately, the times are changing, and people are starting to realize that results speak far louder than any theory. The foundations of nutrition are built on conjecture, and as more evidence comes to light, we have to work to adjust our beliefs.

Like any standard diet book in support of an argument, I refer to an assortment of scientific studies, sprinkle in some historical accounts, and get in a time machine for a bit of evolutionary guesswork. I also include some stories of life-changing experiences and personal triumphs, which I find to be at least as informative as many scientific studies. I'm not writing for the critics, of which I'm certain there will be no dearth. I'm writing for people who want to seriously change the direction of their health and life in general. Some people will get what I'm talking about, whereas others won't (or can't). I have a very difficult task ahead of me, no doubt, but I'm going to be whistling while I work and having some fun along the way!



LET FOOD BE THY MEDICINE AND OTHER HERESY

At this point, it should be clear that I believe nutrition plays a tremendous role in the development, prevention, and mitigation of darn near every common chronic disease. If nutrition affects disease, as I believe it does, then what happens when hundreds of thousands of people try to use a select nutritional scheme to fix a chronic issue. Well, certainly there will be a ton of noise created in the medical community, and there will be an endless supply of bias and plenty of confusing data. Sounds kind of like the system we have in place. Eventually, though, I believe that some signal will rise above the noise, and the cream will rise to the top. People will cast aside that which does not work and will replace it with that which does.

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In this chapter, I discuss some of the medical conditions that I have found to respond favorably to a meat-based diet. For some reason, we seem to think that the presence of a disease automatically means we need some pharmaceutical and that it's impossible for something as lowly as food to contribute to many of our diseases. I am continually impressed by the ever-growing list of conditions that we discover are alleviated by a change in diet. These are often idiopathic (we don't have a clue what causes them) or autoimmune disorders. Amazingly, even some genetic disorders are relieved by dietary changes.

The Carnivore Diet and Chronic Disease

I know from years of taking care of patients that most chronic diseases don't go away; instead, they slowly worsen with time. I also admit that I am biased, as is every other human on the planet. I firmly believe that eating a meat-based diet can help alleviate issues caused by chronic diseases. I've had the good fortune to have thousands of people who've shared their stories of their experiences with pursuing a carnivore diet. The stuff they tell me has shocked me—in a good way. People have told me of a plethora of conditions that have either completely resolved or significantly improved when they've followed a carnivore diet. Here's a sample:

ADHD	Bipolar disorder	Dental caries
Alcohol dependence	Boils	Depression
Amenorrhea	Bulimia	Dermatofibroma
Anemia	Candidiasis	Diabetes mellitus
Angina	Carpal tunnel syndrome	Diverticulitis
Ankylosing spondylitis	Cholelithiasis	Diverticulosis
Anxiety	Chronic bronchitis	Dupuytren's contracture
Arthritis	Chronic fatigue syndrome	Eczema
Asthma	COPD	Ehlers-Danlos syndrome
Athlete's foot	Cocaine dependence	Epicondylitis
Atopic dermatitis	Colitis	Epilepsy
Autism	Crohn's disease	Erectile dysfunction

Fatty liver	Irritable bowel syndrome	Rosacea
Fibromyalgia	Juvenile rheumatoid arthritis	Sciatica
Floaters	Keloids	Scleroderma
Gerd	Lipoma	Synovitis
Gingivitis	Lyme disease	Systemic lupus erythematosus
Gout	Meniere's disease	Tinnitus
Hashimoto's thyroiditis	Narcolepsy	Trichotillomania
Headache/migraine	Nephrolithiasis	Trigger finger
Hemorrhoids	Neuropathy	Ulcerative colitis
Hidradenitis suppurativa	Parkinson's disease	
Hypertension	PCOS	
Hypertriglyceridemia	Psoriasis/psoriatic arthritis	
Hypothyroidism	Quadriceps tendonitis	7
Insulin resistance	Rheumatoid arthritis	7

I could go on and on with the list, but I wanted to give you just a taste of all the ailments that seem to respond positively to the carnivore diet. To be clear, I'm talking about anecdotal reports of people who've self-reported their progress, and I acknowledge that there are several problems with anecdotal data like this. (And critics of this type of data are in no short supply.) People provide anecdotal reports about all sorts of things, such as that they've seen UFOs or that the Virgin Mary has spoken to them via a piece of wood. They report that they've seen Bigfoot and the Yeti, or that they've had their cancer cured by witchcraft. However, the fact that some anecdotes seem outlandish doesn't mean that all are completely worthless, and most theory starts with an anecdote or an observation that someone decides to research with a well-planned study.

Let's look at an example of the typical path that a chronic issue follows. Knee pain is a good one. A person might start with some mild knee irritation that occurs after a particular event or activity. With some rest and maybe a few anti-inflammatories, the problem goes away. A few years later, though, the pain is back and becoming a daily problem. Perhaps the doctor prescribes some therapy and suggests trying a longer course of medications. The pain becomes manageable again, but it never really goes away; it's still hanging around in the background. A decade later, the pain becomes very limiting; the knee begins to swell, and stiffness starts to become more and more common. Imaging might reveal some damaged cartilage and perhaps a torn bit of the meniscus. Now the doctor suggests an arthroscopic surgery to "clean up things," although the benefits of such a

surgery often are minimal. The patient receives a few months of relief, but the knee continues to ache, swell, and be limiting to the person's activities. Sometimes the doctor administers cortisone or viscosupplementation shots. Like the other treatments, the shots provide minimal to no help as a long-term solution. The patient is basically waiting until the knee gets so bad that replacing the joint is the best solution. Some folks with bad knees put their faith in a stem cell injection or a platelet-rich plasma (PRP) injection. These types of treatments often promise the moon based on the latest science, but they don't deliver on the promise. Even after the knee is replaced, most people continue to experience chronic pain in the knee, albeit at a lower level than before the surgery.

Why do all those treatments result in such a poor outcome? Arthritis is as much a biological inflammatory condition as it is a mechanical phenomenon. When you don't address the biological part, fixing the mechanical part is like installing new carpeting for your floors while your house is on fire. You have to address the inflammatory condition to see long-term relief. I've seen countless people who've essentially resolved their arthritic pain by adopting a carnivore diet, and it often happens within weeks of making the dietary change. I've even known of people who've canceled joint replacement surgeries because their joints had completely stopped hurting. According to conventional medical science, that's not what's supposed to happen. These results are highly unusual, and, if you're like me, you should raise a skeptical eyebrow.

That's exactly what I did. I began to track and consolidate these "miracles." I partnered with a like-minded individual named Matt Maier, and we started organizing this data through a small online endeavor. In 2017, we had several hundred people participate in what we called an N Equals Many project, which was informal but still a bit more structured than collecting some random anecdotes. Of the several hundred people who completed ninety days of a carnivore diet, we found across-the-board improvements in self-reported joint health, gut health, sexual health, mood, skin health, energy, and exercise capacity. We saw an average weight loss of about 30 pounds, waist circumference reduction of 3 inches, and a resting heart rate that was 8 points lower than it had been at the start of the trial. I acknowledge that there are all kinds of potential issues with this type of "study," and I fully recognize the limitations. Still, studies like this give us a starting point to lead to more studies as interest in this subject grows.

I'm not the only one who is beginning to look into the relationship between a fully animal-sourced diet and the resolution of disease. Dr. Csaba Toth is a clinician with a small medical group in Hungary, where they have treated several thousand patients using what they call a paleolithic ketogenic diet. Basically, this diet is purely animal-based; it includes meat with relatively high percentages of fats and some occasional organ meat.

I recently spoke with Dr. Toth, and he told me about the work he and his colleagues are doing to address diet and intestinal permeability. They use a substance called polyethylene glycol to determine a patient's intestinal permeability. When our intestinal permeability is high, we're susceptible to developing what we call a "leaky gut," which is an issue that's now thought to be involved in a number of disease states. Leaky gut and autoimmune problems are highly correlated. Dr. Toth has found that changing the components of the diet markedly affects the intestinal permeability, and the most problematic things we ingest are plant oils, medications, and supplements. The second most problematic group includes grains, legumes, nightshade plants, dairy, and sweeteners. Dr. Toth has found that when a person is on a meat-based diet, the intestinal permeability completely normalizes, markers of inflammation (such as tumor necrosis factor [TNF] alpha and interleukin 6 [IL-6]) declines, and autoimmune symptoms begin to resolve. Among the many conditions that Dr. Toth's practice successfully treats are Crohn's disease, ulcerative colitis, irritable bowel syndrome (IBS), Hashimoto's thyroiditis, type 1 and type 2 diabetes, scleroderma, and systemic lupus erythematosus (SLE). They have several case reports in the literature, and many of the clinic's patients are physicians themselves.

Risk factors for common diseases that are universally problematic include things like obesity (especially abdominal or visceral obesity), hypertension, inflammation, and hyperinsulinemia. The issues are considered risk factors with just about every chronic disease that I can think of. I'm unaware of any situations in which excess belly fat is a good thing. Unlike many lab markers of disease (such as elevated cholesterol) that have to be considered in context, things like belly fat and poor insulin sensitivity are bad regardless of context.

One of the most striking patterns that I see when people embark upon a carnivore diet is a reduction in blood pressure, insulin resistance, inflammation, and body fat. In general, improving all these factors reduces your risk for almost any disease. Heart disease? Yep. Cancer? Yep. Dementia? Yep. Depression? Yep. The list goes on and on. There are all kinds of wailing and gnashing of teeth about how eating red meat raises your absolute risk of colon cancer by one percent (from 4 percent to 5 percent). But if you look at the data on the effects of reducing your abdominal obesity or improving your insulin sensitivity, you can start to put things in perspective with the big picture. In a nutshell, reducing abdominal fat improves almost every single chronic disease we know of. Remember, nothing acts in isolation; you have to consider the whole package. As I've said before, when interpreting large-scale population data associations, you need to ask whether the association holds up for all people in all situations. Almost every single bit of health and nutritional data we've obtained over the last century comes from looking at populations of people who consume the majority



of their calories from a carbohydrate-laden diet. Are the normal reference ranges applicable to someone on a low-carbohydrate diet or a carnivore diet? The answer is that we just don't know because those studies haven't been done yet.

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We certainly shouldn't accept "We just don't know" as a final answer. Fortunately, we're starting to see some common patterns emerging as more and more people get comfortable in the low-carb, ketogenic, and carnivore space. We often see elevations in total and LDL cholesterol; that pattern is often accompanied by low levels of triglycerides, favorable triglyceride/HDL ratios, good insulin status, low blood pressure, and low levels of inflammation. Should we consider this a normal variant, or should we still go running scared and start pounding the statin drugs to bring down the total and LDL cholesterol numbers? Many people are starting to challenge the widely held belief that high cholesterol leads to heart disease, and we're now starting to see examples of people who live in a constant state of higher-than-normal cholesterol but whose arteries are perfectly clean when they're examined. I recently had my coronary arteries tested with something called a coronary artery calcium scan, which many believe is one of the best tests to determine cardiac risk. My score was a perfect zero even though I've had elevated LDL and total cholesterol for many years and have been eating an average of four pounds of red meat per day for several years. Again, this phenomenon of high cholesterol with an absence of cardiovascular disease merits further study and long-term follow-up, but until people actually test it, the long-term data will never come.

Does it seem scary that some people roll the dice to be guinea pigs by trying the carnivore diet without having research to back up the claims? I would argue that most of Western society have been involuntary guinea pigs in a giant, failed low-fat experiment that has left us fatter and sicker than at any other point in our existence! We could even make the argument that the introduction of grain into our diets on a massive scale some 10,000 years ago was another huge failed experiment.

Thyroid hormone is another example for which reference numbers of "normal" levels don't always line up with standard ranges. Many people criticize the fact that low-carbohydrate diets are associated with lower levels of circulating thyroid hormone, which often leads people to promote regularly refeeding with large carbohydrate doses to "rescue" thyroid function. Unfortunately, we have too many people who have a little bit of knowledge about lab tests for thyroid hormone, and they've established a "normal" reference range, but these people don't understand what the clinical context of the information means. Low levels of thyroid hormone can be completely normal as long as clinical function (a person's energy, mood, skin condition, and so on) is fine. Thyroid hormone, particularly T3,

seems not to be needed as much when a person restricts carbohydrates. Often, people on low-carbohydrate diets may have a lower circulating T3 level, but they're still completely normal in terms of clinical function, and they don't need to take pills or ingest more carbohydrates. In other words, you don't need to take a pill for a symptom you don't have just because of the numbers on a lab test.

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The Case for the Carnivore Diet as "Treatment"

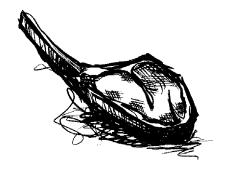
The top three issues I've observed being improved by a carnivore diet are joint pain, digestive health, and mental health. The likely reason for this is because these issues are among the most common ailments. Mental health disorders are often given a special place in the landscape of human disease, probably because of the emotional turmoil associated with them. However, mental health issues are just diseases, as diabetes and arthritis are. Given that, no one should get upset when someone suggests that nutrition may play a role in the development or mitigation of these diseases, but some people do. Why is it considered radical to suggest that a diet of processed seed oil, grains, and oxalates is linked to depression? I just don't understand that reaction.

Let me offer an example of the connection between diet and mental health from my personal experience. In summer 2018, I visited my sister and my young niece. My sister had just recently gone through a divorce and was doing the best she could with the circumstances. Her daughter was, to put it diplomatically, not being the most polite kid on the planet. Anyway, I observed a lot of tension in the house, and I asked my sister if she would consider switching her diet. She was in favor of trying it. Even though she bought products that were organic and natural, they were still processed and sugary, so we got rid of all the junk food in the house. My niece, who was nine at the time, was not happy to see us throwing out all the food; and she was on the floor rolling around and screaming (which shows the addictive nature of some of these exquisitely engineered foods). I'm happy to report that since my sister changed her approach to buying and cooking food, my niece's behavior has completely turned around. Including more animal products and little to no engineered foods in their diets was an extremely powerful behavioral intervention.



Examinations of depressed patients show that they often suffer from lower levels of carnitine than people who don't suffer from depression. You might recall from my discussion earlier in the book that humans can produce carnitine, but when we eat meat, our levels of it tend to increase. It's possible that the higher levels of carnitine are the reason so many people notice an improvement in mood after they've eaten a nice steak. Low cholesterol levels also are associated with higher rates of depression, as well as violence and suicide. Hyperinsulinemia has been associated with some mental health disorders, and in my informal studies, we have seen that eating a carnivore diet is often very effective in improving insulin status. Gut issues and inflammation are other ailments that are highly associated with mental health status. Guess what—a carnivore diet helps in those areas as well. In 1933, noted wilderness activist Robert Marshall wrote in his book Arctic Village that the people he lived with, who survived on caribou meat in the remote wilds of Northern Alaska, were the happiest civilization he had ever encountered. I had a patient who had spent eighteen years living off the land and surviving primarily on caribou meat in remote Alaska. There's even a movie about her experience—The Year of the Caribou. She was eighty-three when I knew her, and she told me that the happiest she had ever been and the best health she had experienced was during that time in Alaska.

Vegan propagandists often claim meat is inflammatory, and to support their claims about inflammation, they sometimes cite a study that used an isolated situation in which meat was not the only variable. We have to remember that human physiology is an incredibly complex system, and you can't take an isolated lab test or cell culture study and extrapolate it to the entire system. The best way to see whether meat is inflammatory to the human body is to feed it, and nothing else, to humans for a prolonged period to find out what happens via both clinical and laboratory assessment. (See Figure 7.1.) Contrary to what the vegans would like us to believe, as more and more people try out the carnivore diet, we have more evidence that meat is very much an anti-inflammatory diet.



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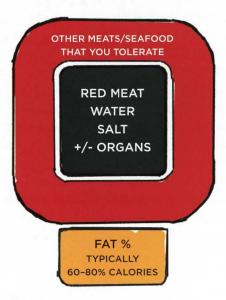


Figure 7.1 Disease mitigation

Autoimmune diseases are strongly linked with gastrointestinal problems, and increased intestinal permeability may be one of the chief culprits. Some of the recent literature on this subject focuses on altering the microbiome—often by using probiotics—to affect the intestinal permeability. This technique has generally produced little success because the microbiome is incredibly responsive to diet, and if the diet isn't altered, then the probiotic-induced shift in microbiome will likely be short-lived at best. As I previously mentioned, some of the common food components that appear to cause gut permeability issues are plant oils, drugs and supplements, legumes, grains, dairy, and sweeteners. The carnivore diet pretty much excludes all these items, except occasional limited dairy for those who can tolerate it. It's interesting to note that many people see a resolution of a variety of autoimmune conditions when they exclude those items from their diets.

Aside from the benefits that a carnivore diet has on autoimmune-related arthritis, it seems that a fairly high number of people also report improvement in the more common osteoarthritis. Conventional wisdom has been that osteoarthritis is a mechanical problem and a disease of "wear and tear." Recent studies indicate that pathophysiology of osteoarthritis has a much greater component of inflammation than previously thought, and perhaps it also has a relationship with gut permeability. A recent animal study has shown a link between carbohydrate consumption as a possible etiologic agent in osteoarthritis. So, I owe an apology to all the patients who I didn't believe when they used to tell me that eating certain foods made their joints hurt.

SUN TOLERANCE

One of the unusual side effects of a carnivore diet seems to be an increased level of sun tolerance for many, but not all, of the diet's adherents. A possible link between a decrease in consumption of omega-6 fats has been postulated as a possible mechanism. We know prehistoric man wasn't walking around with sun hats and smearing on SPF 50 sunscreen every time he went outside, so perhaps it was the meat-based diet that helped protect him from the dangers of too much sun exposure.

Common conditions such as hypertension, type 2 diabetes, and obesity often get better on a carnivore diet. These same conditions sometimes improve on other low-carbohydrate and low-calorie diets. A decrease in vascular inflammation likely contributes to improved blood pressure; often, people who have high blood pressure see improvement within a few weeks of adjusting their diets. Blood glucose stabilization typically occurs over several months. If we look at postprandial blood glucose readings of long-term carnivores, they tend to be very stable with no significant elevations, which is in contrast with what we see with most diabetics, who often have fairly wide swings in their blood glucose numbers. Likewise, overall insulin sensitivity seems to improve fairly consistently based on observation of long-term carnivore dieters who have shared their data.



Obesity and the Carnivore Diet

Obesity is probably my least favorite subject to talk about, not because it's so contentious but because, in my opinion, it's misunderstood. Before I talk about the mechanisms by which a carnivore diet can help people to lose weight, let me explain why I think that we misunderstand obesity.

In my view, the core problem of obesity is malnutrition. We all can point to starving children who are woefully thin and agree that they're malnourished, but when we look at a morbidly obese person, malnourishment doesn't immediately spring to mind. If we look past the myriad metabolic enzymes and hormonal interactions that are constantly shifting and the issues of calorie balance and brain chemistry, we can focus on the simple fact that if the body doesn't receive proper nourishment, problems will ensue with all the bodily systems that I've talked about thus far in this chapter.

The obese are often calorie replete but nutrient starved. If you feed yourself low-quality carbohydrates that are rich in energy but low in nutrients (micronutrients, essential fats, and amino acids), you won't be satisfied. Your hunger won't be appeased, and you'll eventually fall prey to cravings for more and more food. If you continue consuming low-quality food, which is about 90 percent of what is currently available, you'll eat more and more calories and continue to suffer from what become irresistible cravings. Over time, you end up with a metabolism that doesn't work very well, a hormonal system that's suboptimal, and a severe case of carbohydrate addiction.

Many people don't believe that food is addictive, but we have ample evidence to show that certain foods stimulate the brain in ways very similar to other known addictive recreational or prescription drugs. People often mask that addiction by claiming they are "foodies" or by becoming prolific exercisers to offset the food addiction. The common platitude of "all things in moderation" is often just an excuse to get a little bit of addictive food down the gullet.

Do people lose weight because they cut calories on the carnivore diet? Yes, for some people that certainly is what occurs. Meat tends to be pretty darn satisfying and satiating to most people. Many people struggle to eat much meat, particularly when they first start the carnivore diet, and they definitely lose weight. Often, early weight loss is due to water weight coming off, particularly if a person is switching from a high-carbohydrate diet. Carbohydrates stimulate insulin to the greatest degree, which leads the kidneys to hang on to fluid that is often stored with glycogen.



Some people who've switched to a carnivore diet have found that once they've adapted and become victorious over cravings for addictive foods, they've been less inclined to indulge in other addictions, such as to alcohol and cigarettes. Many people have been able to quit using those things altogether.

Some people swear that on a carnivore diet, they eat far more than they did before, but they still lost weight. Perhaps dramatically increasing protein plays a role because protein is extremely difficult to turn into body fat, and numerous protein overfeeding studies confirm this. Is it possible that a shift in hormones due to a different food substrate plays a role either in impacting satiety or upregulating metabolic rate? Certainly, this is a hotly debated topic, and I don't pretend to know conclusively what the answer is. I know that my body handles energy expenditure in ways I have no voluntary control over. How much heat I produce is dependent upon the environment I'm in, the activity I'm engaged in, and perhaps the fuel I'm using. Many people report feeling more energized on the carnivore diet as aches and pains go away, and often they feel the desire to move a bit more often. Ultimately, I don't think the exact mechanism much matters in the grand scheme of things. When we get our bodies the correct nourishment, our health starts to

thrive, and that is where the prize lies.

I come back to the topic of body composition in the next chapter where I talk about how to implement and sustain the diet, how to monitor whether it's working for you, and what kind of changes you might see when you let meat be the center of your diet.



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Chapter 8

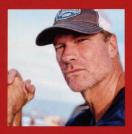
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Dr. Shawn Baker is a surgeon, decorated military officer, CEO, international lecturer, and father. He also has been a highly successful athlete for his entire life. His experiences as a professional rugby player, national powerlifting record holder, world

champion Highland Games athlete, world champion rower, nuclear weapons launch officer for the United States Air Force, combat trauma surgeon in Afghanistan, and orthopedic surgeon have given him a unique perspective on the world.

In recent years, Dr. Baker's focus has been on how nutrition and lifestyle affect health, disease, and performance. His advocacy for the carnivore diet has inspired countless people to challenge our flawed nutritional paradigm in favor of living a full carnivore lifestyle. You can follow Dr. Baker on Twitter (@SBakerMD) and Instagram (@shawnbaker1967).

