

Recently the “carnivore diet” has become quite popular, thanks in part to the famous University of Toronto professor Jordan Peterson, as well as his daughter Mikhaila having used this meat-only diet to alleviate health issues like depression, anxiety, fatigue and arthritis.

Needless to say, this diet steps on a *lot* of toes, especially if you happen to advocate for a plant-based diet. Even if you’re on a low carb or keto diet, this still probably sounds extreme considering you can’t even have avocados or macadamia nuts.

Dr. Shawn Baker, a big carnivore diet advocate has been on the diet [for about 7 years](#) for about 2 years and runs a website called meatheals.com. As of August 26th, 99 people have shared their stories of how they improved their health by eating only meat - healing things like depression[[1,2,3,4,5,6,7,8...](#)], various gut issues[[1,2,3,4,5...](#)], and rheumatoid arthritis[[1,2,3,4,5](#)] with 77 of them experiencing weight loss, 61 of them commenting on improved mood and 31 people seeing improvements in their skin. There are plenty more stories to be found elsewhere on the internet.

So, whatever diet camp you happen to be in, investigating *why* this diet seems to help people could provide some useful information that you may apply to your own diet, even if you have no intention of eating a bunch of meat.

So what about this diet is causing so many reported improvements in health?

In this video, we’ll look at:

- 1) Nutrients
- 2) Fiber
- 3) Why a lack of plants may help some people

The first concern you may have is: won't you get scurvy or some Vitamin deficiencies?

In the 1960 book "The Fat of the Land" by Vilhjalmur Stefansson, he describes his experience living with the Inuit of Canada beginning in 1910. He explained that *"If meat needs carbohydrate and other vegetable additives to make it wholesome, then the poor Eskimos were not eating healthfully till the last few decades. They should have been in wretched state along the north coast of Canada, particularly at Coronation Gulf, when I began to live among them in 1910 as the first white man most of them had ever seen. But, to the contrary, they seemed to me the healthiest people I had ever lived with. To spread abroad the news of how healthy and happy they and I were on meat alone was a large part of the motive for writing this book."*

He also said that the Inuit remained completely scurvy-free, *"except for a few who worked for white men, [and] ate their food, and then developed scurvy like the whites..."*

First of all, certain animal parts like the liver contain vitamin C, so you could simply eat some liver or if you're more adventurous, the [adrenal gland](#), [brain](#) and [spinal cord](#) of animals are high in vitamin C. The Inuit would usually toss the bitter caribou liver to their dogs, but they frequently ate mountain sheep liver and always ate seal liver when they could.

But... it seems that some of the recent advocates of the carnivore diet are scurvy free and doing just fine while rarely consuming organ meats.

It was discovered by [Lloyd and Sinclair](#) in 1953 that even the the skeletal, cardiac and smooth muscle of animal meat contains Vitamin C, but that's

somehow been forgotten.

A recent list of ascorbic acid contents of the organs of various mammalian species collected by LLOYD and SINCLAIR (1953) is shown below:—

The Distribution of ascorbic acid in various mammals (mg./100 g.).

	Ox	Horse	Dog	Sheep	Rat	Guinea-pig		Man	
						cab- bage	2 mg./day	from YA- VORSKY et al. (1934)	fr. GOTH a. LITTMANN (1941)
Brain	16.6	18.5	13.4	15.4	27	18.6	8.4	11-46	6.2
Hypophysis	126	136	101	139.6	106				
Testicle	30	46	45	34	26.3				3.1
Thyroid	17	18	16.5	31.7	22				2.1
Stomach	6.3	8	4	6.5	16.6	11.0	1.7		2.8
Small Intestine . .	18	17	18	20.2	22.6	20.4	4.2		2.0
Large Intestine . .	7.3	6.8	7	10.4	19	10.3	2.2		1.3
Lymphatic ganglion	51	44	27.6	45.4	57				
Lung	18.2	18	14.6	12.6	27			4-13	1.0
Skeletal muscle . .	1.6	1.3	1.7	2.55	3.1	3.1	0.4		
Cardiac muscle . .	3.8	3.3	3.6	6.2	4.6	7.5	2.2	2-88	
Smooth muscle . .	6.3	5.3	4	10.8	18.7				
Liver	20-37					16.7	1.7	6-16	5.0
Spleen	27.5	29	24.4	34	32.6	43	9.3	8-16	30.0
Kidney						8.5	1.3	5-15	4.3
Adrenal	97-160					150	21	25-38	15.5

But, is this small amount enough? An interesting thing to consider is that your body works differently on this type of diet. Because glucose (carbohydrate) and vitamin C [are structured similarly](#), they actually [compete for glucose transporters](#), so too much glucose can inhibit vitamin C transport.[\[R3,R4,R5\]](#) Simply put the less glucose you consume, the more efficiently you can utilize Vitamin C, so the less Vitamin C you require.

The near zero carb nature of the carnivore diet should help people maintain proper levels of other nutrients as well. [This paper](#) looking at 50 people doing a paleolithic ketogenic diet found that all but one person had adequate levels of magnesium *without supplementation*. Considering up to [50% of Americans are magnesium deficient](#), this is significant. The study also found that the lower people's glucose, the better their magnesium levels.

Also, 70g of salmon roe or just 2 *tsp* of cod liver oil will easily cover [Vitamin E](#) and [D](#) and boost your Vitamin A. If you don't want dairy in your diet, you can get more vitamin K2 from grass fed beef tallow - and you'd want to make sure and supplement in more fat from tallow or bone marrow anyway. Then, I would really recommend wild caught or pasture raised animals eating a natural nourishing diet and be wary of fish oil oxidation.

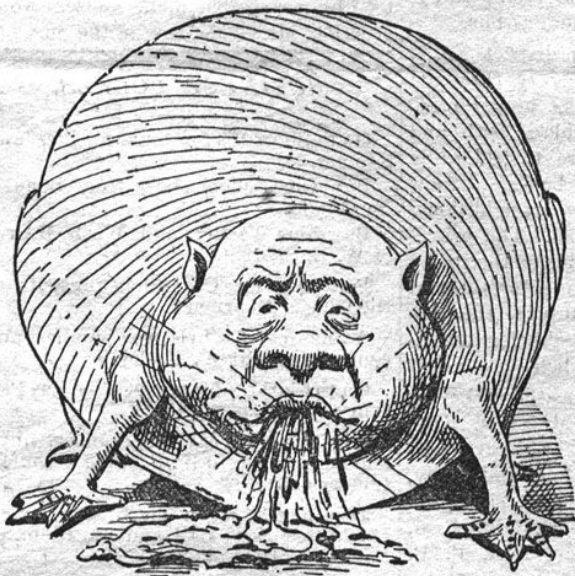
But wait a minute... Thiamin is looking a little low at just 54% of the RDI. This brings us to another example of more efficient usage of nutrients on this diet. As Dr. Chris Masterjohn explains in this video of his: [Burning carbohydrate for energy requires twice as much thiamin](#), so your requirements for thiamin are going to be drastically lower and easier to meet on this diet.

The next concern you may have about this diet is... whether you could actually make any progress on the toilet. After all, it's "common knowledge" that fiber is necessary for preventing constipation.

And people have been frightened by the ill effects of constipation for thousands of years. A paper by James Whorton states that As far back as the 16th century BC, an Egyptian pharmaceutical papyrus - [the Ebers Papyrus](#), explains that constipation could lead to the poisoning of the body by material released from decomposing waste in the intestines. This theoretical condition was called autointoxication, and it influenced medicine for more than three millennia; [\[R2\]](#) Even in the 1850's a popular American health manual warned that without daily bowel movement, "the entire system will become deranged and corrupted."[\[S\]](#)

As James Whorton says, this fear of autointoxication lead to the marketing of all kinds of anti-constipation foods and drugs in the early 1900's when "*Literally hundreds of brands of bowel cleansers competed for consumer dollars.*"

BOWEL BLOAT



A horrible, slimy monster that makes man's life a misery.

After eating: a bloated belly, belching of gas from the stomach, a foul, ill-smelling scurf on the tongue, dizziness, headache, a sour rising and spitting up of half-digested food, — it's Bowel Bloat.

When the bowels stop working they become filled with putrid, rotting matter, forming poisonous gases that go through the whole body. If you don't have a regular, natural movement of the bowels at least once a day your fate is bowel bloat, with all the nasty, disgusting symptoms that go with it.

There's only one way to set it right. Clean yourself out gently but thoroughly and tone up your bowels with CASCARETS. Every form of bowel trouble is quickly and permanently

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CANDY CATHARTIC
BEST FOR THE BOWELS
ALL DRUGGISTS

10c.
25c. 50c.

To any needy mortal suffering from bowel troubles and too poor to buy CASCARETS we will send a box free. Address Sterling Remedy Company, Chicago or New York, mentioning advertisement and paper. 415

But Jump forward to 2011, despite bowel irregularity occurring in 15% of adults and 9% of children, [this preface to](#) "Best Practice & Research:

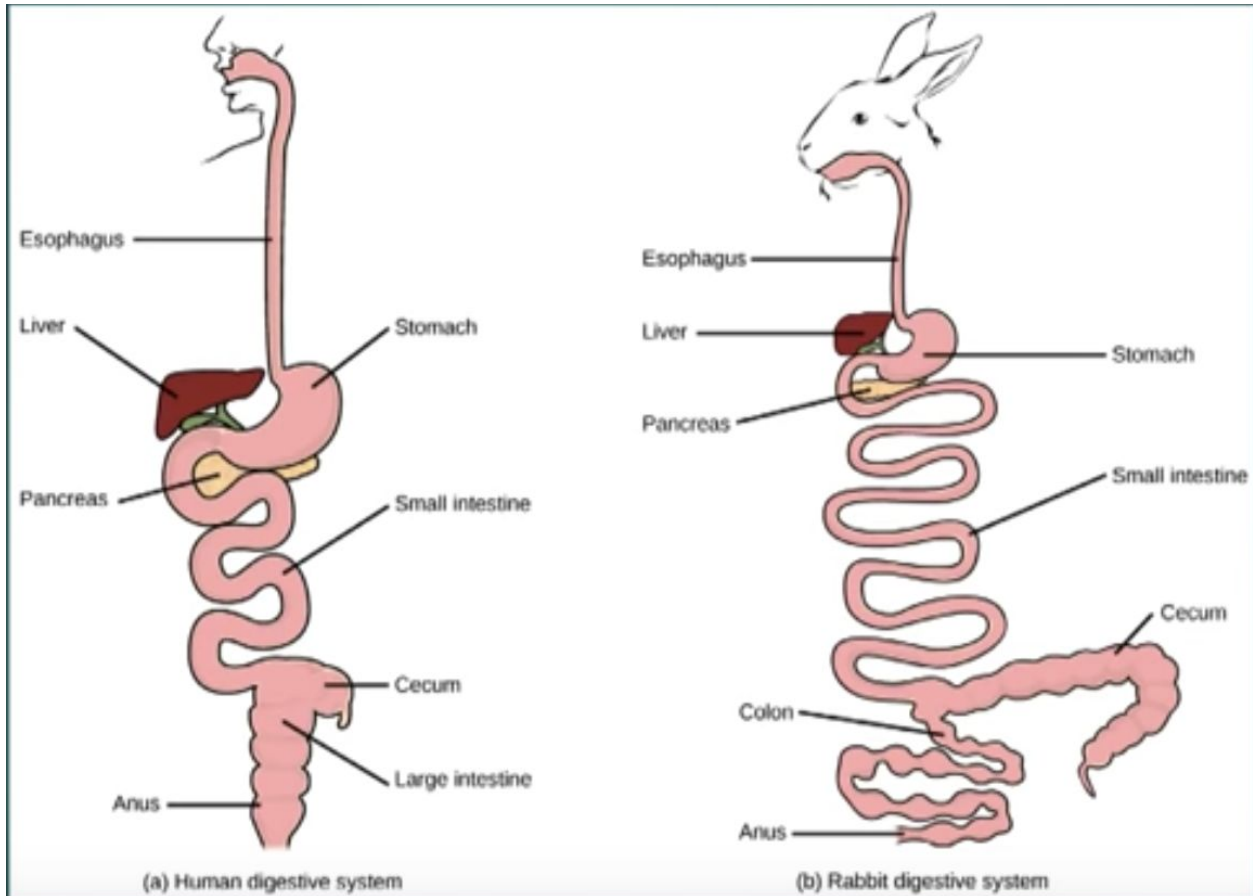
Clinical Gastroenterology,” says “*our understanding of the pathophysiology of constipation, both in paediatric and adult populations remains primitive.*”

But I thought the cure for constipation was obvious. The makers of Bran cereal have been telling us with their television commercials starting in the 1950’s to just chuck some fiber down there.

But, is fiber really the answer? “*When we consider the current governmental advice, they consider fiber to be the best available treatment for constipation...*” Dr. Paul Mason presents here a case controlled study that looks at 63 patients with constipation and high and low fiber diets were compared in them. “[This also included a zero fiber diet](#) that required the complete cessation of [fiber consumption].”

As we can see, patients experienced *worsened* symptoms on a high fiber diet, then on a *reduced* fiber diet, people experienced a modest *reduction* in symptoms. “So the question is, what happened to those on the zero fiber diet?” [Shows lack of symptoms] “[This is not a mistake.](#)”

Now, herbivores eat a huge amount of fiber without getting constipated, ...but their digestive tract is designed for this: they generally have much bigger [cecums](#) for fermenting the fiber. And for some people fiber may seem to help get things going, but you have to remember it also increases the amount of matter the bowels now need to expel.



This might not be enough for you to challenge fiber's rule over the bowel, so I recommend watching the full talk by Dr. Paul Mason or reading the book "Fiber Menace" by Konstantin Monastyrsky.

At this point you may be worried about the gut microbiome. Wouldn't cutting out fiber kill off all our good bacteria? Not necessarily - bacteria have specific conditions for their growth, some prefer oxygen, some don't. Some like fiber, some don't and so on.

[This study](#) found that Canadian Arctic inuit still maintain a diverse microbiome but they do have lower diversity in the Prevotella bacteria. Prevotella has been shown to improve glucose metabolism[R] Meaning their diet may worsen their glucose metabolism a bit, but remember they consume hardly any glucose. And... prevotella [is linked to chronic](#)

[inflammatory conditions](#)^[R], such as arthritis.

This situation falls in line with one theory that some benefits of the carnivore diet come from starving off harmful bacteria. In any case, as Dr. Paul Mason points out, research is really not at a point to make definitive claims about fiber causing changes in the microbiome that are necessary for good health. Though, it is apparent that nuking your microbiome with antibiotics is very likely a bad idea.

When I first heard about this diet, I wasn't surprised that some people had benefits - after all, the diet cuts out processed food, wheat, soy, sugar, and vegetable oils. Zero Fiber is one thing, but what really surprised me was that people were experiencing improvements after going from simply meat and greens to just meat:

[Jordan Peterson clip]“[Quit eating Greens](#). Really?? I'm eating goddamn cucumbers, broccoli and beef.” “...I've been better every single day.”

So, why would cutting out greens from an already clean diet help? Well, it comes down to a simple fact of biology - living things really [don't like being eaten](#). Just like a [gazelle](#) has predators, so do plants: [[Seaweed shark](#)] A gazelle can run away to avoid being eaten, but what can a plant do when a bug or human shows up? While we are masters of locomotion, plants are fantastic chemists.

I'm talking about secondary metabolites, or “plant toxins.” One of the perks of us humans being intelligent is that we've learned to avoid the highly poisonous plants and have developed methods for deactivating the toxins of others.

Though in certain cases, some people can have problems with plant food toxins which don't affect the rest of the population. For example, I grew up in the heat of Texas yet didn't have any problems with the photosensitizers

in Lime or Celery. Unfortunately, these poor girls did... Experiencing "[Second degree burns from limes](#)." Photo sensitizers, technically called "furanocoumarins" are toxins in plants that make animals and humans sensitive to light.

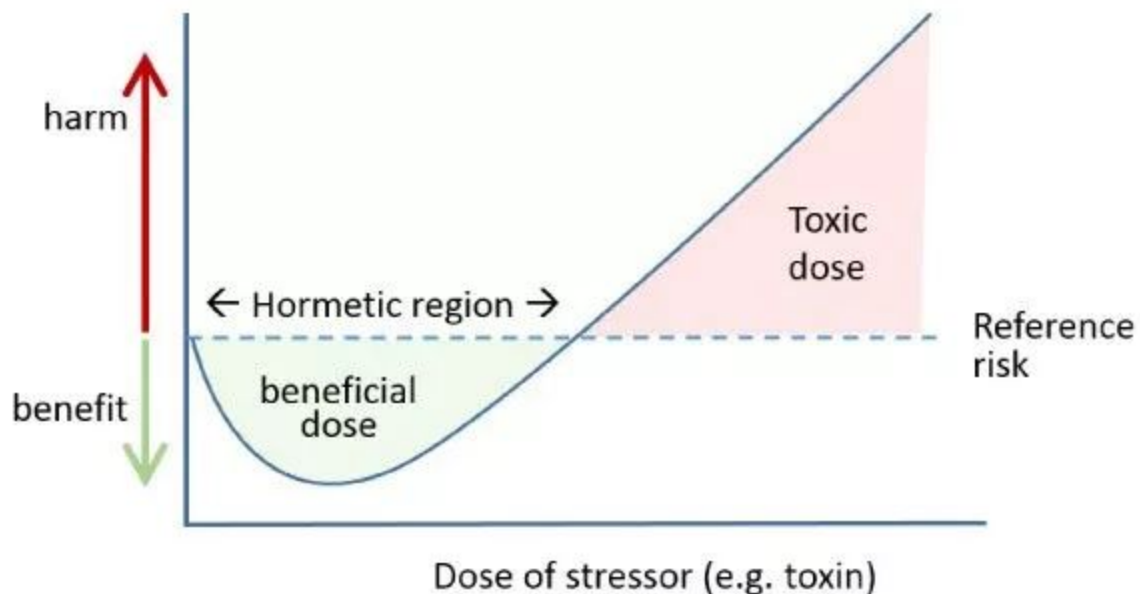
And virtually all plant foods we normally consume have some level of defense against plant eaters.

According to this 1990 paper titled "[Dietary pesticides \(99.99% all natural\)*](#)," led by Biochemist Bruce N. Ames, "99.99% (by weight) of the pesticides in the American diet are chemicals that plants produce to defend themselves. Only 52 natural pesticides have been tested in high-dose animal cancer tests, and about half (27) are rodent carcinogens; these 27 are shown to be present in many common foods."

The paper goes on to list 57 plant foods with these carcinogens: anise, apple, apricot, banana, basil, broccoli, brussels sprouts, cabbage, cantaloupe, caraway, carrot, cauliflower, celery, cherries, cinnamon, cloves, cocoa, coffee, collard greens, comfrey herb tea, currants, dill, eggplant, endive, fennel, grapefruit juice, grapes, guava, honey, honeydew melon, horseradish, kale, lentils, lettuce, mango, mushrooms, mustard, nutmeg, orange juice, parsley, parsnip, peach, pear, peas, black pepper, pineapple, plum, potato, radish, raspberries, rosemary, sesame seeds, tarragon, tea, tomato, and turnip." and Table 1 identifies forty-nine natural pesticides and metabolites found in cabbage alone.

Before it sounds like I'm saying shopping in the produce section is slowly killing you, let me point out that we're not rats and that [hormesis](#) has to be taken into account. Hormesis is essentially the concept of a "good stress" - that is, "the dose makes the poison," or "what harms me in the right way

and not too much makes me stronger.”



For example, just like you or me, broccoli doesn't like to be chewed on. So, when broccoli is cut or chomped on, glucoraphanin in the broccoli is activated through an enzyme myrosinase to form an isothiocyanate, a toxin called sulforaphane. This molecule is designed to kill small living creatures, but it can be good for us, it's a mild stress that our bodies gear up for and the end result is we wind up stronger.

Dr. Rhonda Patrick has [an extensive video](#) explaining the vast and impressive potential benefits of this compound: everything from preventing cancers, ameliorating existing cancers to lowering inflammation and preventing cognitive decline.

But we can't say *all* the defense mechanisms of every plants result in a hormetic effect for everyone.

Selected categories	Examples	Effects
Antinutrients	Phytic acid, oxalic acid	Decrease nutrients availability
Endocrine disruptors	Lectins, phytoestrogens, exorphins	Interact with endocrine receptors
Immune disruptors	Lectins, gliadin, saponins, Thaumatin-like proteins	Stimulate immune system or disrupt physical barriers
DNA/RNA binding molecules	Rice miRNA	Alter transcription of LDL-receptor
Antioxidants	Isolated vitamin C	Impair hormetic response
Flavonoids	Quercetin, kaempferol	Inhibitors of key enzymes in metabolism

This table, from a presentation done by [Dr. Maelan Fontes](#) shows a couple different types of Bioactive Plant compounds that can be damaging. One is Phytic acid, or “phytates” which come from grains, nuts and legumes and bind to nutrients like Calcium, Iron, Potassium, Magnesium, Manganese and Zinc, making them less absorbable.[R]

But, the phytic acid doesn't just impair you from absorbing the nutrients in the seed itself, it also impairs absorption of nutrients from other foods you eat. [For example, as this study found](#), when you consume zinc rich oysters with black beans, you'll absorb about half of that zinc. And when you consume them with corn tortillas, you'll absorb almost none of that zinc. [R]

Another substance found in common plant food with low level toxicity is oxalate - it is found in Bran, Beets, Soy, Blueberries, Lime Peel, Orange peel, Nuts and several other things. Since oxalate is usually [more concentrated in the leaves of plants](#), Spinach is particularly high in it.

According to [Haschek and Rousseau's Handbook of Toxicologic Pathology](#), *“Plant oxalates have been divided into soluble and insoluble fractions. Insoluble plant oxalates include calcium oxalate, are found in crystalline form in plants, and are very irritating to mucosal membranes. When animals eat these plants the crystals are immediately irritating, causing mechanical damage to the oral cavity and gastrointestinal tract. Consequently, most animals avoid eating them. However, when other forage is not available and animals are forced to eat them, bucal irritation and lesions develop that are seen clinically as mucosal hyperemia, swelling, and marked hypersalivation.”*

Obviously the levels in food that we normally eat are way too low to cause any immediately apparent effects, but high levels of oxalate are no joke.

In 1989, a 53 year old diabetic, alcoholic man died after having 6g worth of oxalate from sorrel soup - this is the equivalent of about half kilo of spinach. However, keep in mind this person was already severely metabolically impaired. Since the [LD50 is 400mg/kg](#), about 2.5 kilos or 5.5 pounds of spinach has a 50% chance of killing a healthy person.

However, as Sally Norton argues in this talk, while the oxalate levels found in food may not produce any quickly apparent effects, problems can arise when you [repeatedly expose](#) yourself to oxalates through your diet by eating things like spinach, almonds and cashews.

["4% of what you're eating is being retained in tissues left behind causing issues."](#)

Tiny oxalate crystals can accumulate in the body and you can find them [in the bone, the skin and the glands](#). Accumulation in the thyroid impairs thyroid function, accumulation in the breast has been linked to cancer, and accumulation in the kidneys leads to kidney stones. [70 to 80%](#) of all kidney

stones are made of calcium oxalate. So if you have kidney stones, poor kidney function or poor thyroid function, you may feel better on a low, under 50mg oxalate diet. This means no more than six leaves of spinach per day.

There are so many secondary metabolites we could about, but the point is plants really don't want you to eat them and these defense mechanisms are in virtually every single plant food.

The gliadin protein in wheat disrupts the physical barrier of the gut causing inflammation.[R] Protease inhibitors in things like grains, nuts, seeds, and soy inhibit some of the enzymes that help us digest protein.[R] Soy also contains phytoestrogens which bind to estrogen receptors and cause hormonal issues.[R] Goitrogens are found in soy, other legumes and cruciferous vegetables and hamper thyroid health[R,R2,R3*] Saponins, which are found in soy, beans, peas, lentils and other legumes[R] are used as emulsifiers in the food and cosmetic industry[R] and can damage the gut lining, making it more permeable or "leaky." [R,R2,R3] There's also a huge variety of plant *lectins* that some people can be sensitive to.

But of course there are tons of studies talking about the vast **benefits** of all kinds of plant compounds. A lot of people seem to thrive on a plant based diet. So, surely it comes down to how each person responds to these substances. One level of a secondary metabolite from plants may be a beneficial hormetic stress for one person while being a detrimental toxin for another.

When dealing with some chronic ailment, many people try several different elimination diets to find out what's triggering their symptoms. So if you suspect you have some sensitivity, why not try all of them at once and add foods back in later. The carnivore diet happens to be a low lectin, low FODMAP, low sulphite, low oxalate, low salicylate, low phytate, super low carb and no fiber diet.

One thing I should add is that if you have plant food sensitivities you may become less tolerant to those foods when you stop eating them.

Now this video only scratches the surface of this diet - there's still many things to discuss like nutrient density and bioavailability, but surely one key factor in why many people are experiencing improvements is this meat only diet acts like the ultimate elimination diet.