THE CARNIVORE CLASS

All about the Carnivore Diet

ABOUT ME

- Starting eating keto in 2008
- Been researching nutrition science since 2010
- Diagnosed with Lyme disease in December 2017 after 5 years of pain
- Been mostly carnivore since early 2018
  - Big improvement in Lyme pain

A NEW LIFE

- Maria at age 16 went to the doctor:
  - Told I had PCOS
  - I was 60 pounds over-weight (even though I was a top athlete)
  - Given an anti-depressant
  - Acid Blocker
  - Suffered with IBS

- That SAME week, I took my dog to the Vet
  - Vet asked, “What are you Feeding her?”

  - Cutting Alcohol vs. Cutting Carbs?????

CAUSED PCOS

- My love for baking started at an early age!
  - It also shows my early age of sugar addiction.

- I grew up loving sugar! I also had a lot of ear infections, which means a lot of antibiotics.
  - Antibiotics = low good gut bacteria
    - SUGAR CRAVINGS!

WHAT IS YOUR WHY???

Healing autoimmune disease? Weight Loss? Simplicity? Depression and anxiety? Lyme disease?

CARNIVORE HAS HELPED SO MANY

- Amber O’hearn
  - Off all bipolar medication IF she stays carnivore
- Michaela Pederson
  - Healed Arthritis
- Lyme Patients
- Fibromyalgia
- Many more examples

PLANT ISSUES

Vegetables don’t come without issues

ANTINUTRIENTS IN PLANTS

- All Plants have anti-nutrients
  - Anti-nutrients are compounds that serve no function in the body and can harm you in high amounts
- The plants have evolved natural defenses
  - These are natural pesticides
  - Plants can’t run away like animals
  - They protect the parts of the plant it doesn’t want you to eat
    - Leaves, stalk and roots
- There are thousands of these compound, most of which we have never studies the effects on humans
  - Cabbage has over 49 antinutrients alone

GLUCOSINOLATE AND SULFORAPHANE

- Cruciferous Vegetables
  - arugula, bok chow, broccoli, brussels sprouts, cabbage, cauliflower, collard greens, kale, kohlrabi, mustard greens, mustard seeds, radishes, rutabagas, turnips, wasabi and watercress among others
- Use Sulferophane to protect itself (natural pesticide)
  - But is doesn’t sit in the field with sulferophane, it would kill its own cells
  - Instead it has glucosinolate and myosinase in separate compartments (the two ingredients to make sulferophane)
  - When chewed these compartments break open and combine to form sulferophane

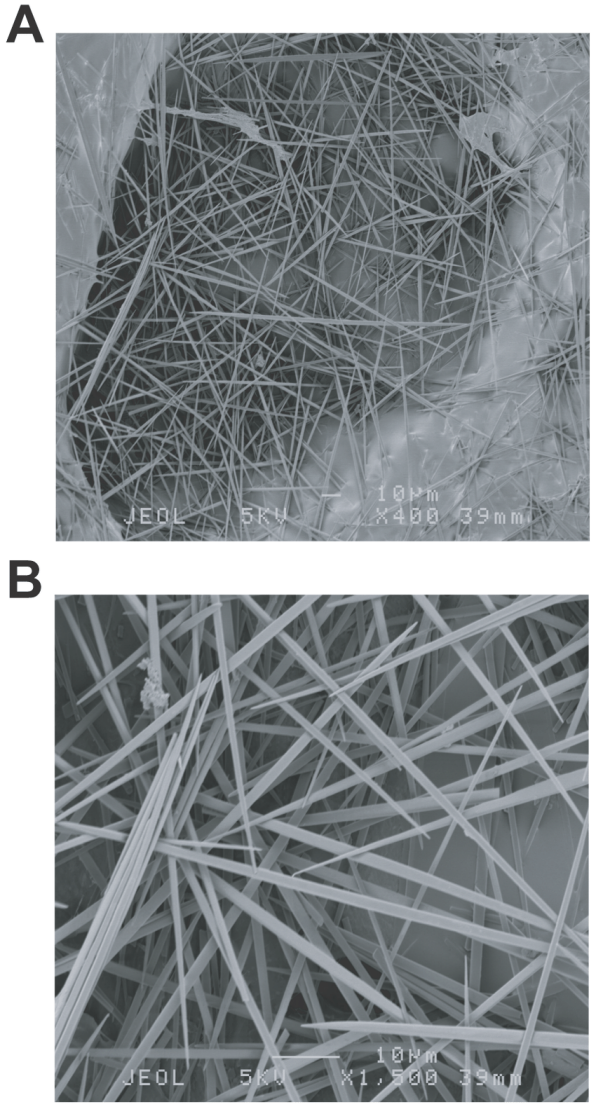
SULFORAPHANE

- Sulforaphane can kill worms, bacteria and insects
- In humans, can inhibit enzymes, poke tiny holes in our cells and cause reactive oxygen species (ROS or oxidation). Possibly connected to leaky gut.
- Boiling for 10-15 minutes (basically turning veggies to mush) can reduce it by about 50%.

OXALATES

- Tiny crystals in most plants
- Damage cells in the digestive tract, possibly leading to leaky gut.
- Too much can kill you
  - Toxicity range is about 3.5g to 30g
  - People with leaky gut, metabolic issues, etc.. have lower tolerance.
- A man in Spain died after 3 bowls of sorrel soup (about 3.5 grams oxalates)
  - About the same amount of oxalates in ‘Green smoothies”

Photo of Oxalates in Kiwi. Source: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0091341



OXALATES

- Disrupt normal cell function
- Accumulate over time.
- Deplete you of minerals (iron, magnesium, calcium, etc.)
- Highest oxalates levels in spinach, swiss chard, green curly kale, chocolate, almonds and all nuts, sesame and seeds, potato and sweet potato, cinnamon, turmeric, peanuts and legumes, green tea, chia, beets, rhubarb, figs, kiwi, blackberries, grains and plantains among many others. Peanuts, almonds, potatoes and spinach are some of the most common foods that are the worst for oxalates.
- No real way to reduce the amounts.
- OXALATE DUMPING

PHYTATE (PHYTIC ACID)

- Phytates are plant acids that aren’t found in animals
- Prevent mineral absorption (calcium, zinc, copper, magnesium, etc.)
- Found in seeds, beans, nuts and grains
- Soaking, sprouting or fermenting can reduce amounts

GLYCOALKALOIDS

- Compounds found in Nightshades
- Natural pesticide against bacteria, fungi and insects
- Disrupt neurotransmitter signaling
- Studies show it can damage cell membranes potentially leading to leaky gut
- Highest in tomatoes, eggplant, potatoes and peppers
  - Potatoes are the worst
- Toxicity levels are from 1mg/kg of bodyweight to 3mg/kg
  - 1-ounce bag of chips has 2.7mg to 12.4mg

HUNDREDS MORE

- Tannins (tea, coffee, legumes)
- Saponins, trypsin inhibitors (cereals, breads, baby foods)
- Isoflavaones (soybeans, flax)
- Calcitriol, solanine, nicotine (nightshades, eggplant, peppers, tomatoes, potatoes)
- Chaconine (corn, potatoes, etc..)
- Cyanide (beans, manioc, many fruit pits)
- Canavanine (apfalfa sprouts)
- Goitrogens (soy, peanuts, cruciferous veggies)
- Salicylates (berries, dried fruit, herbs and spices)

MODERN PRODUCE

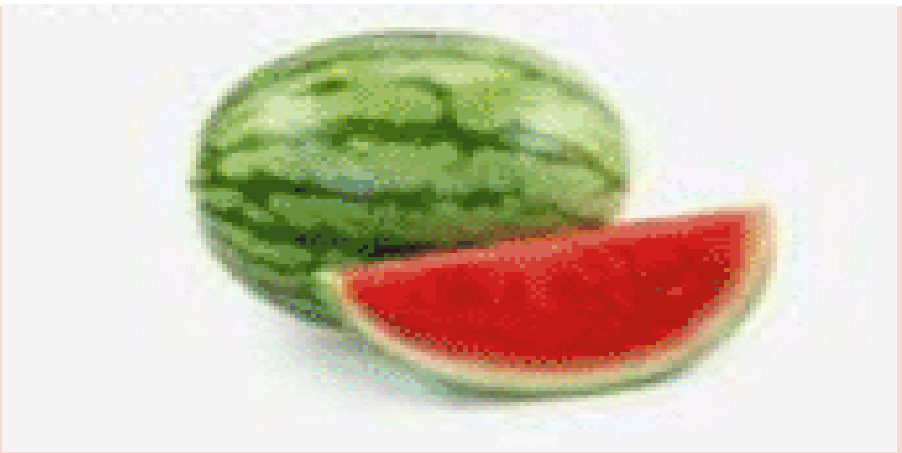
Looks nothing like our ancestors ate and we get it year round.

MODERN PRODUCE ISN'T PALEO

- Modern produce has been hybridized over the last few hundreds years
  - Many in last 100-200 years or so.
    - Modern tomato was invented in 1840
    - Modern Strawberry in 1803
- No Seasonality
  - Fresh produce available year-round.
    - Within last 100 years
  - Canning not invented until 1810 and not used in America until 1913
  - Frozen produce started in 1930s

WATERMELON

Wild Watermelon
From 17th century paintings wild watermelon may have once had seeds arranged in a swirly geometric pattern. It was about 50 mm across (less than 2 inches) and had to be opened with a hammer or sharp object. It had an extremely bitter taste and was only found in Namibia and Botswana and there were 6 known varieties. It had a very short period of a couple weeks where they were ripe and ready to eat. It was 80% water and 1.9% sugar with 18.1% other mostly starch and fat.



Modern Watermelon
The modern watermelon is 26 inches across or over 10 times bigger. It is very sweet and juicy and is easy to open. There are now over 1200 varieties grown in over 15 countries producing 95 million tons. They are 91.5% water (14 times juicier) and 6.2% sugar (3.3 times as sweet) with 2.3% other (almost fat and starch free).

CARROT

Wild Carrot
The wild eggplant was very thin with a distinct powerful flavor. They were originally purple or white and originated in Persia and Asia minor in the 10th century. It had a biennial plant meaning it took two years to complete their biological cycle.

Modern Carrot
The modern carrot is the result of years of manipulating mutant strains of purple carrots through experimenting done by the Dutch in the 16th century. They result was the sweet bright orange variety we see today. It is much sweeter and is grown year-round all over the world.

CORN

Wild Corn

Wild worn was actually a grass about 10,000 years ago called teosintes. It was barely edible and as dry as a potato. It was about 19 mm long (3/4 inch) with 5-10 very hard kernels. You needed a hammer or sharp object to peel it. There were 8 known varieties and it was only found in central America. It was 75% water, 1.9% sugar and 23% others, mostly starch.

Modern Corn

Modern corn is 190 mm long (7.5 inches) with over 800 kernels (1000 times larger volume). There are over 200 varieties grown in 69 countries which produces over 790 million tons a year. It is very sweet and juicy with 73% water, 6.6% sugar (3.5 times sweeter) and 20% other, mostly starch.

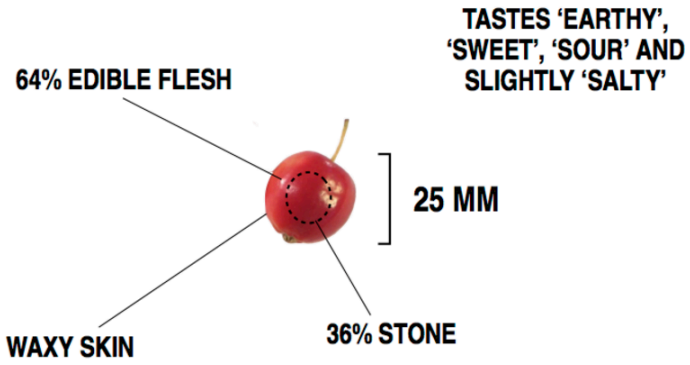
STRAWBERRY

Wild Strawberry
The wild strawberry was very small at only about 5 mm across (about 1/5 of an inch). They are sweet and tart. It would take a day of foraging to collect one handful.

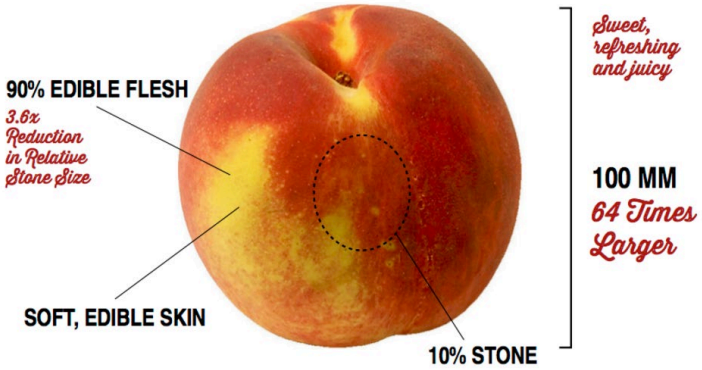
Modern Strawberry
The modern strawberry was hybridized first by French botanists in the 1300s. They managed to make the fruit 15-20 times larger, but still much smaller than today's strawberry. In 1764 the pine strawberry was first hybridized. It wasn't until 1806 when, by accident during hybridization experiments, the huge modern strawberry was developed. They are now grown year-round all over the world producing over 9 million tons a year.

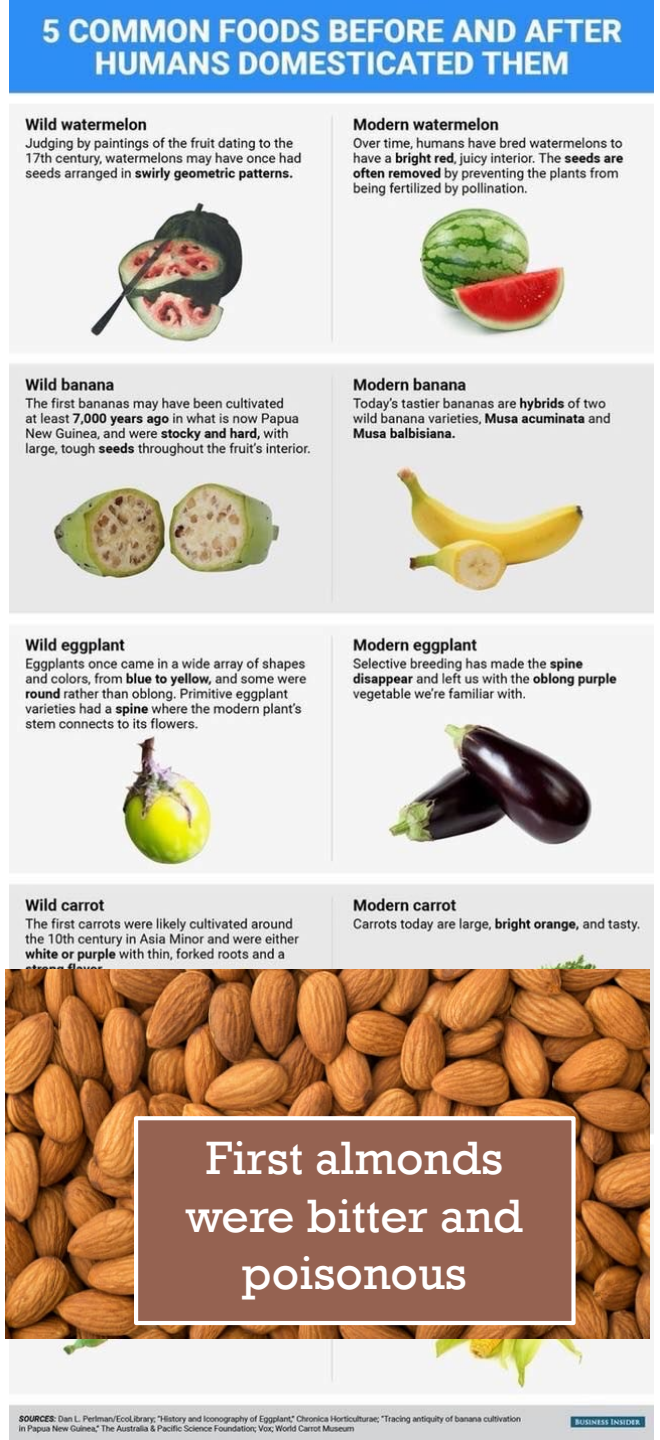
ALL MODERN PRODUCE

NATURAL PEACH, 4000 B.C.



ARTIFICIAL PEACH, 2014





STILL HAPPENING TODAY

- Sugar Bee Apple (2016)
  - Honeycrisp hybrid taking the already sweet Honeycrisp
- Cotton Candy Grapes
  - 100 calories and 28 grams sugar

  compared to already hybridized grapes

  with 62 calories and 15 grams sugar.

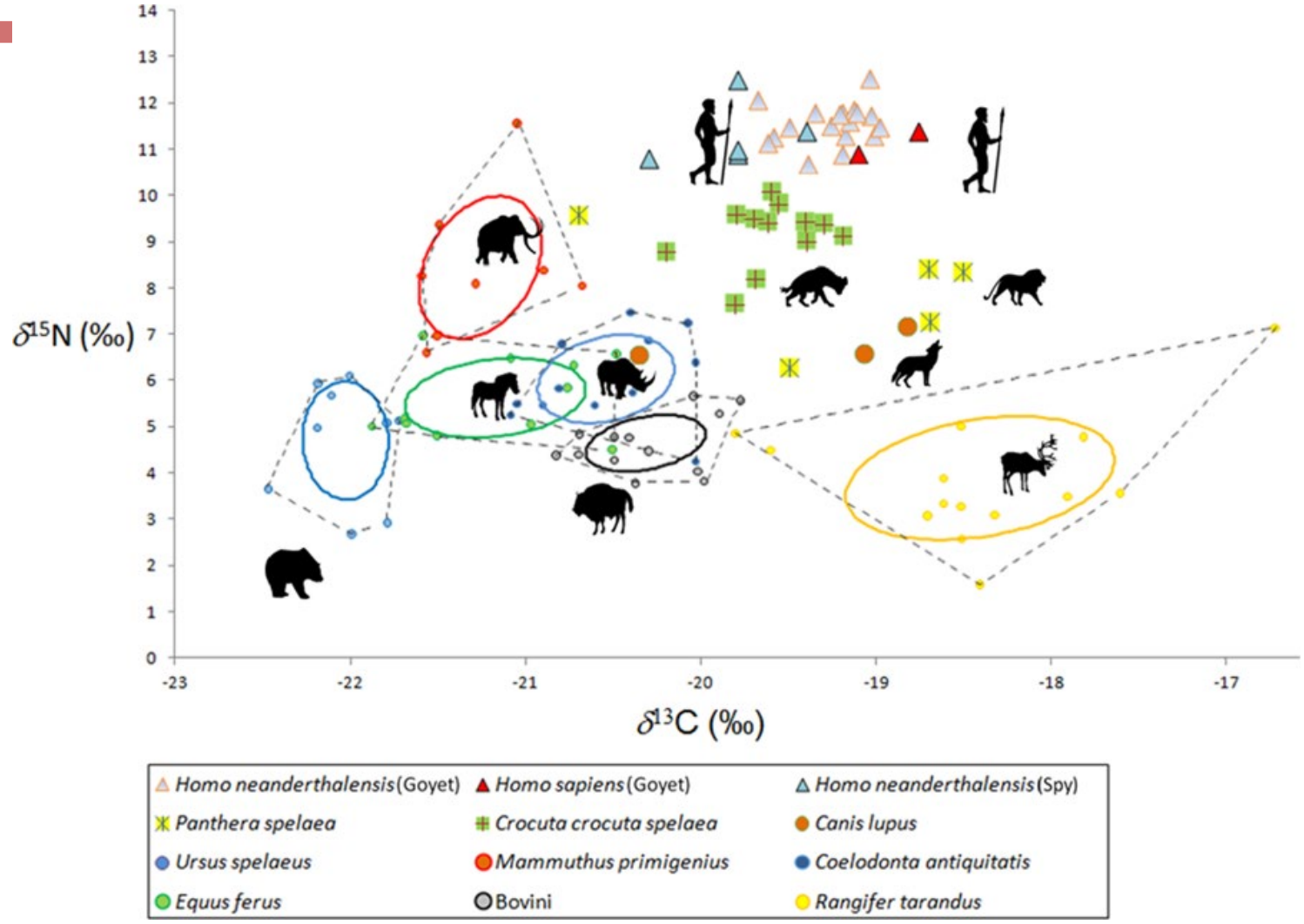
  That is almost DOUBLE the sugar!
- Many more examples and it will continue

HUMAN DESIGN

What are we designed to eat?

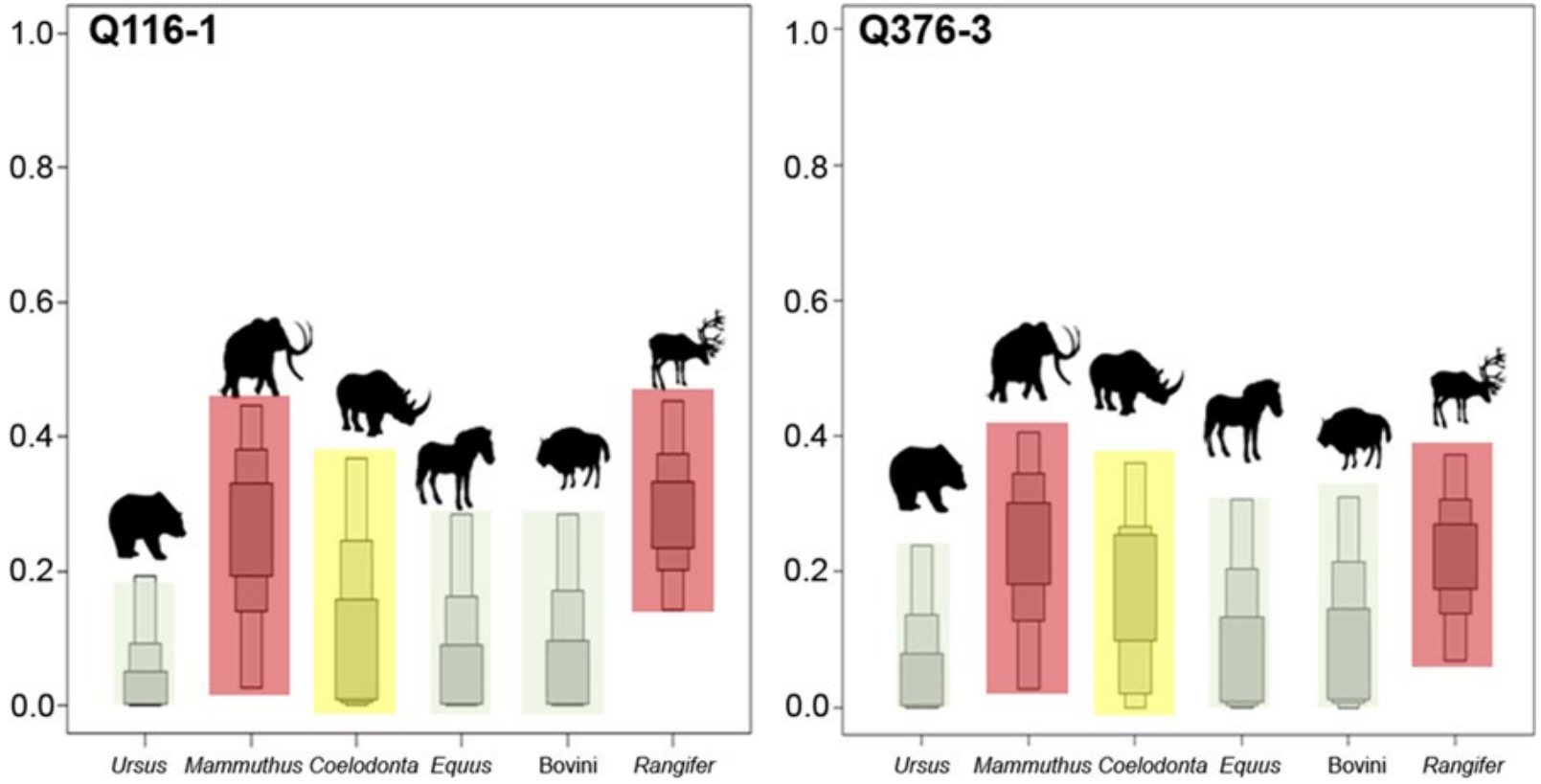
WHAT DID OUR ANCESTORS EAT?

- isotopic values of bone collagen
- Higher means more carnivorous
- Humans were higher than Hyenas, Lions and Wolves



DIET OF UPPER PLEISTOCENE MODERN HUMANS

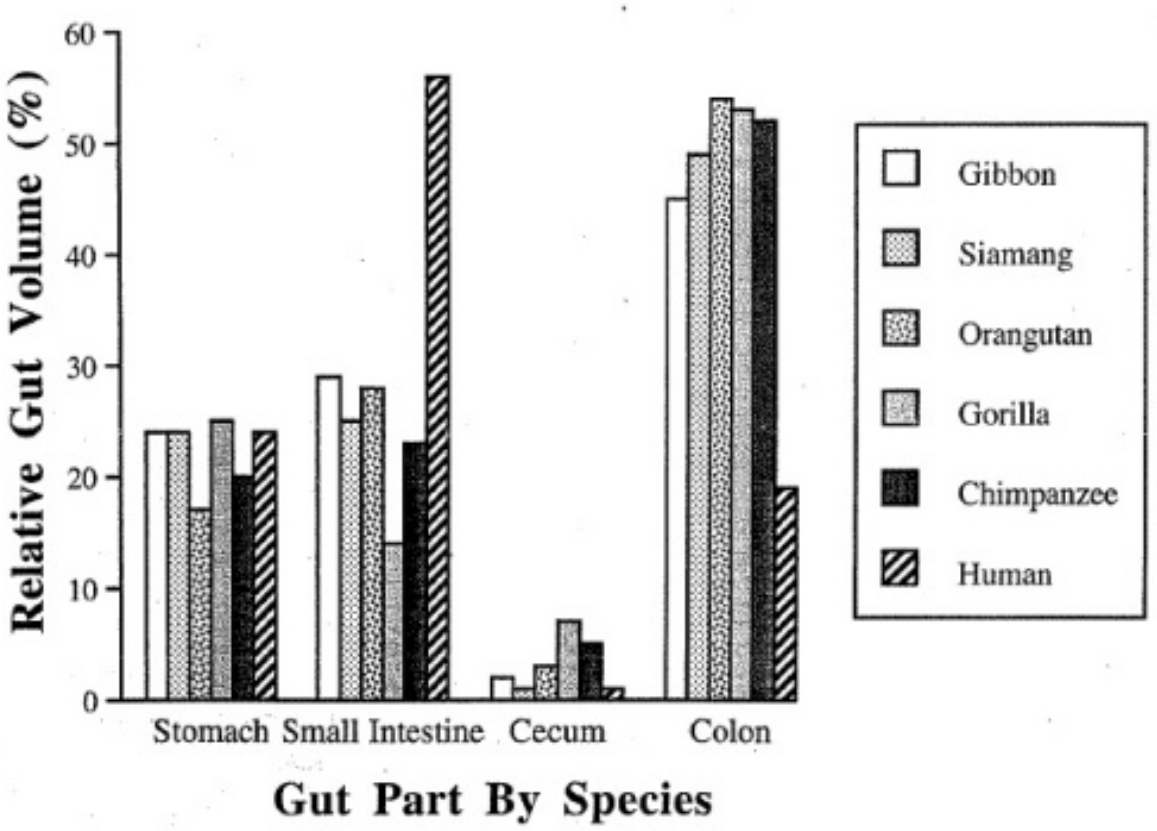
- Our Ancestors ate meat
- Primarily Large animals
- This was when our brains were growing larger and larger



Source: https://www.nature.com/articles/s41598-019-41033-3

EVOLUTIONARY CHANGES IN OUR GUT

- Human has much smaller Colon and much larger Small Intestine
- Small Intestine, great for digesting animal foods, cooked plants, etc..
- Colon good for digesting low quality foods like leaves, stems and stalks
- We traded a big gut for a big brain
- This required more nutrient dense foods



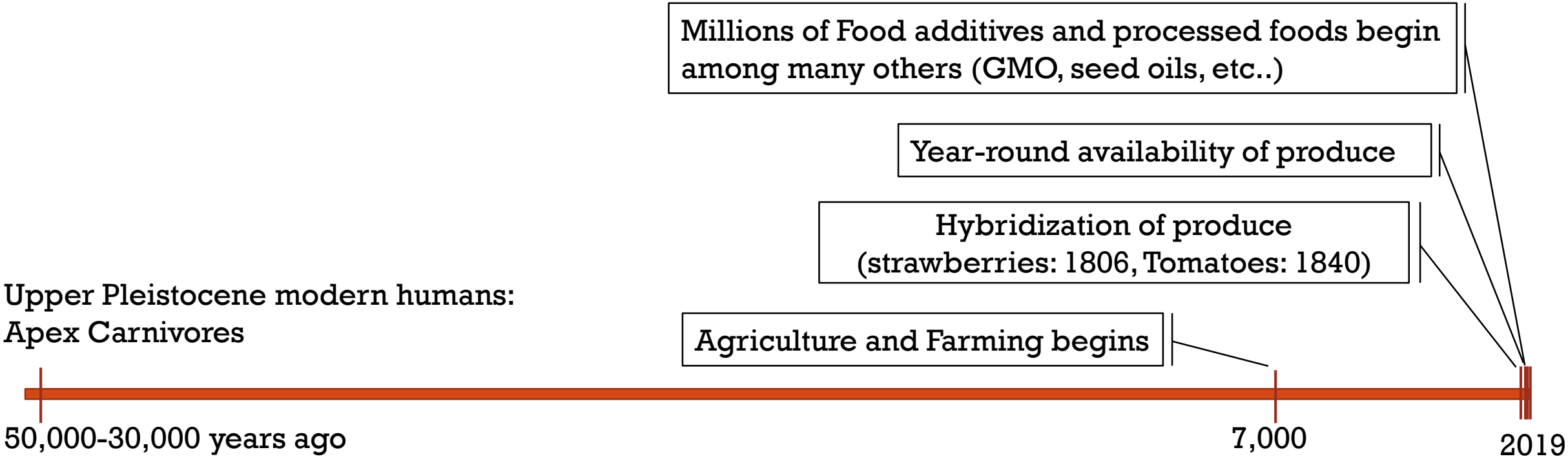
Source: “Nutritional Characteristics of Wild Primate Foods” by Katharine Milton, Journal of Nutrition, 1999

STOMACH PH

- One last point of interest is about stomach acid pH. In general, herbivores have a stomach acidity of 5-6.
- Omnivores have a stomach pH or 3-4. Carnivores have a stomach pH of 2-3.
- Humans have a stomach pH of 1 to 2, typically about 1.5-2.
  <source: https://gut.bmj.com/content/gutjnl/30/5/573.full.pdf >

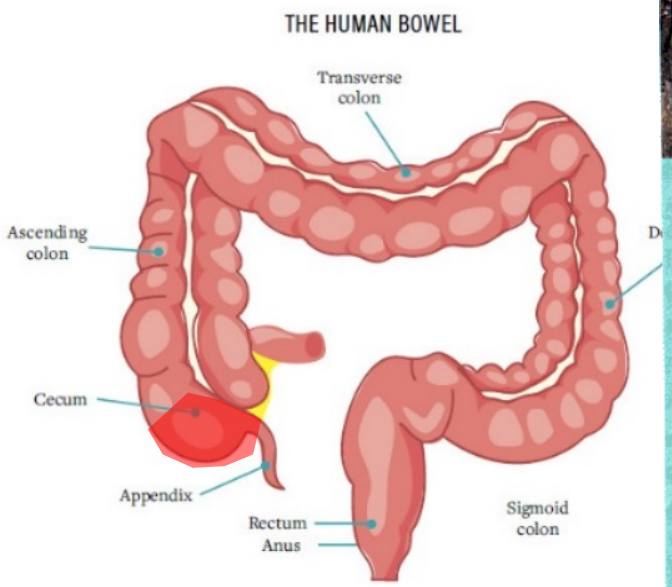
ANCESTRAL TIMELINE

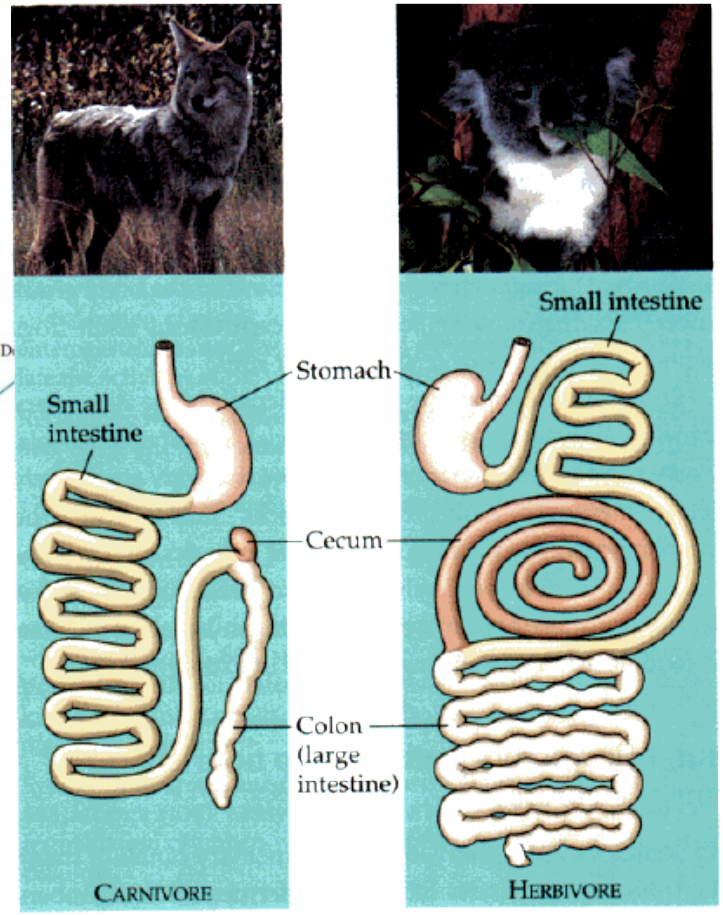
- Putting changes in our diet into perspective



WHAT ABOUT FIBER?

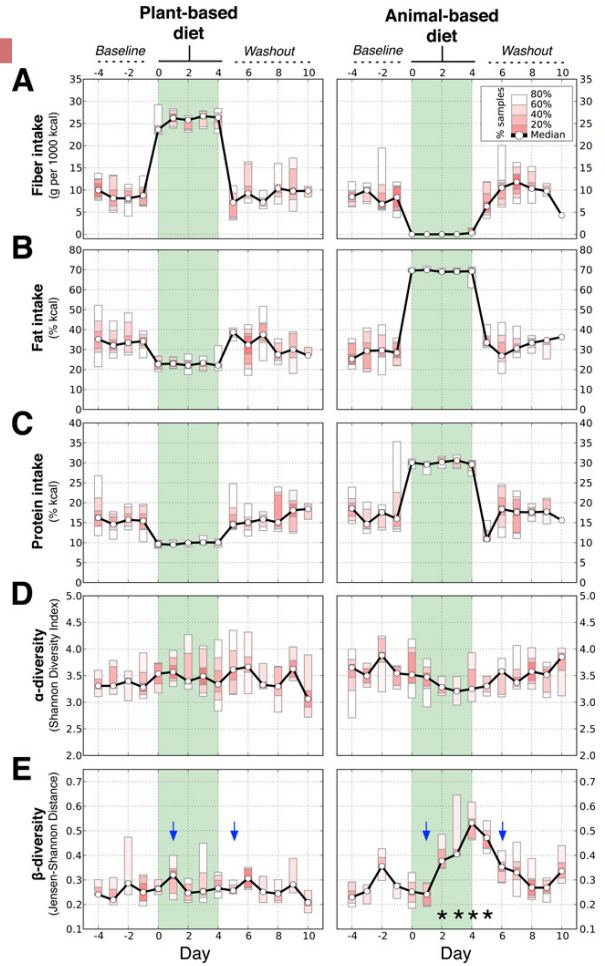
- Cecum is a pouch that ferments plants to turn indigestible fiber into energy (fatty acids).
- Human Cecum is tiny and thus we can't really digest any fiber
- Omnivores have much larger cecum. Herbivores have huge cecum





WHAT ABOUT FEEDING GUT FLORA?

- Our microbiome shifts rapidly
- 24 hours of eating meat only, large shifts occur
- Our microbiome is very flexible and adaptable
- Over time, can bacteria diminish if not fed?
  - Do I care if bacteria for processing gluten are diminished or gone?



Source: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3957428/

FOODS WITH THE HIGHEST PREBIOTIC CONTENT

Substrate	Total SCFA
Casein	7.42
Cellulose	1.53
Chicken cartilage	5.50
Collagen	7.96
Fructooligasaccharides	10.37
Glucosamine	7.11
Glucosamine chondroitin	5.36
Rabbit bone	4.14
Rabbit hair	2.18
Rabbit skin	3.36

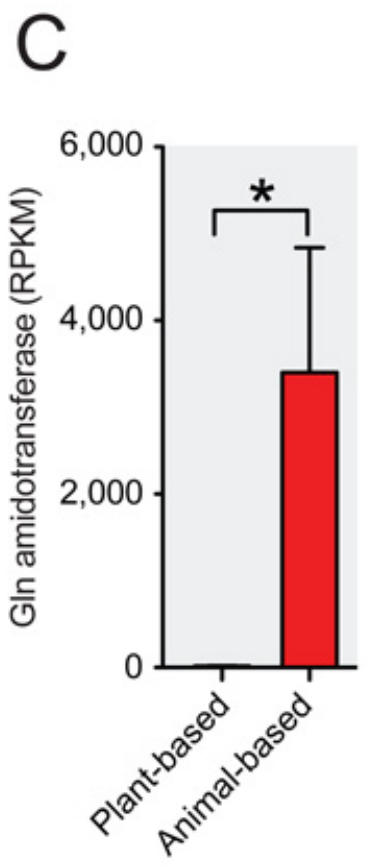
HUMAN DESIGN

- ✓Ancestors at more meat than any other animal
- ✓Our intestines are evolved to process mainly meat
- ✓Our cecum is so small it can’t process any fiber
- ✓Our stomach pH is more acidic than scavengers and other carnivores

While we are technically omnivores, we are primarily designed to eat animal protein

OTHER CHANGES WHEN GOING CARNIVORE

- Large increase in gene expression with the carnivore diet
  - Genes vital for vitamin biosynthesis
- Why such a large shift? Where are all these bioavailable nutrients coming from?



MICRONUTRIENTS IN FOODS

What foods are highest in micronutrients?

NUTRIENTS IN "SUPERFOODS" COMPARED TO ANIMAL PROTEIN

Per Serving	Apples	Blueberries	Kale	Beef	Beef Liver
Calcium (mg)	9.1	4.5	63.4	9.7	9.7
Magnesium (mg)	7.3	4.5	15.0	16.7	15.8
Phosphorus (mg)	20.0	9.0	24.6	154.0	340.6
Potassium (mg)	163.8	57.8	200.6	325.6	334.4
Iron (mg)	0.2	0.2	0.8	2.9	7.7
Zinc (mg)	0.2	0.2	0.2	4.0	3.5
Selenium (mcg)	0.0	0.1	0.4	12.5	34.9
Vitamin A (IU)	69.2	40.5	13530.9	35.2	46992.0
Vitamin B6 (mg)	0.0	0.1	0.1	0.4	1.0
Vitamin B12 (mcg)	0.0	0.0	0.0	1.8	97.7
Vitamin C (mg)	7.3	7.3	36.1	1.8	23.8
Vitamin D (IU)	0.0	0.0	0.0	6.2	16.7
Vitamin E (mg)	0.2	0.5	0.8	1.5	0.6
Niacin (mg)	0.2	0.3	0.4	4.2	15.0
Folate (mcg)	0.0	4.5	11.4	5.3	127.6

MICRONUTRIENTS

- Across a wide range of micronutrients, steak is more nutrient dense
- Organ meat like Beef Liver is the real SUPERFOOD!

ANIMAL PROTEINS

- Animal proteins are some of the most nutrient dense foods available.
- Organ meats are the real super-foods.
- Somehow, we have lost this fact.

(per 100g)	Chicken	Pork	Eggs	Salmon	Beef	Beef Liver
Calcium (mg)	11	5	53	9	11	11
Magnesium (mg)	28	24	12	27	19	18
Phosphorus (mg)	196	296	191	240	175	387
Potassium (mg)	255	489	134	363	370	380
Iron (mg)	0.7	0.4	1.8	0.3	3.3	8.8
Zinc (mg)	0.8	1.4	1.1	0.4	4.5	4
Selenium (mcg)	17.8	40.6	31.7	24	14.2	39.7
Vitamin A (IU)	21	0	487	50	40	53,400
Vitamin B6 (mg)	0.5	0.7	0.1	0.6	0.4	1.1
Vitamin B12 (mcg)	0.4	0.5	1.3	3.2	2	111
Vitamin C (mg)	1.2	0	0	3.9	2	27
Vitamin D (IU)	2	53	35	526	7	19
Vitamin E (mg)	0.1	0.1	1	3.6	1.7	0.63
Niacin (mg)	11.2	8.8	0.1	8.7	4.8	17
Folate (mcg)	4	0	47	26	6	145

WHAT ABOUT FATS?

- Fats have little to no micronutrients
- Fats are essential, but shouldn't be the focus
- No Bullet Proof Coffee!
- Chew whole foods rich in micronutrients with a focus on animal proteins

(Per 100 Grams)	Beef Tallow	Lard	Beef	Beef Liver
Calcium (mg)	0	0	11	11
Magnesium (mg)	0	0	19	18
Phosphorus (mg)	0	0	175	387
Potassium (mg)	0	0	370	380
Iron (mg)	0	0	3.3	8.8
Zinc (mg)	0	0.1	4.5	4
Selenium (mcg)	0.4	0.2	14.2	39.7
Vitamin A (IU)	0	0	40	53,400
Vitamin B6 (mg)	0	0	0.4	1.1
Vitamin B12 (mcg)	0	0	2	11
Vitamin C (mg)	4	0	2	27
Vitamin D (IU)	0	0	7	19
Vitamin E (mg)	5.5	0.6	1.7	0.63
Niacin (mg)	0	0	4.8	17
Folate (mcg)	0	6	6	145

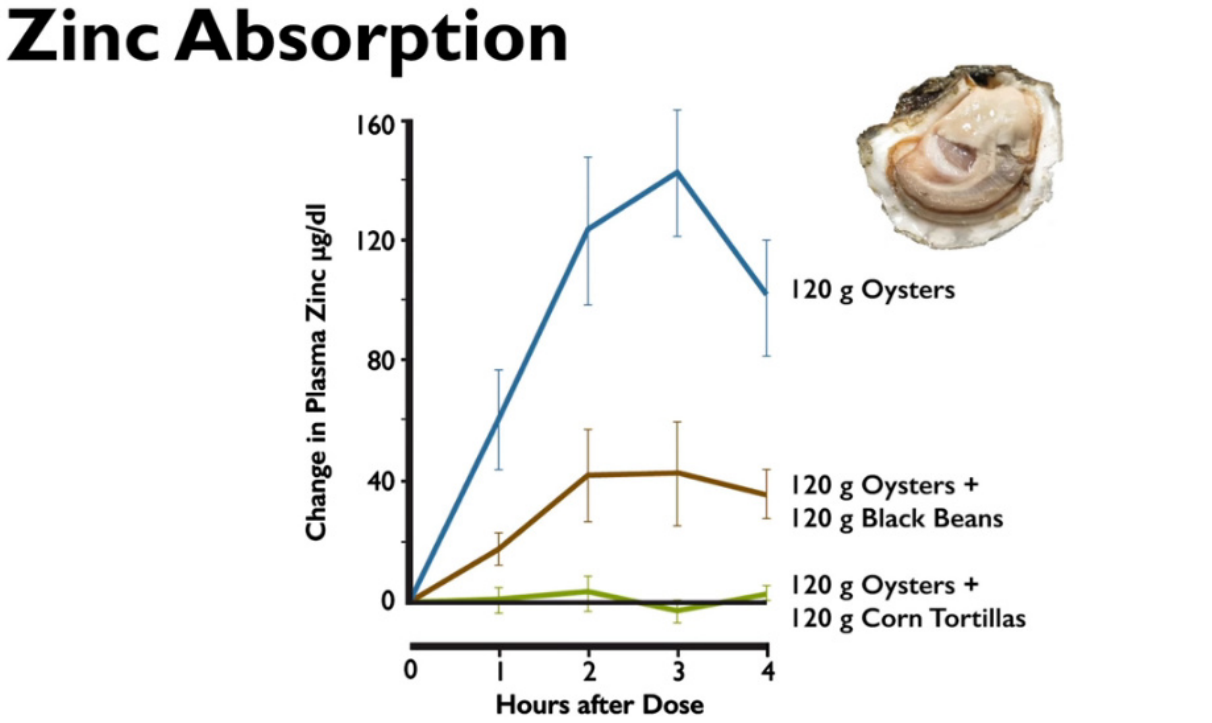
JUST BEEF!

- Don’t want to eat liver, beef wins out all by itself.
- #1 or 2 in 13 out of 15 vitamins and minerals

(per 100g)	Apples	Blueberries	Kale	Beef
Calcium (mg)	5	6	72	11
Magnesium (mg)	4	6	17	19
Phosphorus (mg)	11	12	28	175
Potassium (mg)	90	77	228	370
Iron (mg)	0.1	0.3	0.9	3.3
Zinc (mg)	0.1	0.2	0.2	4.5
Selenium (mcg)	0	0.1	0.5	14.2
Vitamin A (IU)	38	54	769	40
Vitamin B6 (mg)	0	0.1	0.1	0.4
Vitamin B12 (mcg)	0	0	0	2
Vitamin C (mg)	4	9.7	41	2
Vitamin D (IU)	0	0	0	7
Vitamin E (mg)	0.1	0.6	0.9	1.7
Niacin (mg)	0.1	0.4	0.5	4.8
Folate (mcg)	0	6	13	6

BIOAVAILABILITY

- Zinc absorption
- On their own, much of the zinc is absorbed
- With black beans, only 30%
- With corn tortilla, none 0%
- Other examples:
  - Spinach is high in calcium, but it is almost all tied up in oxalates
  - Meat iron absorption – 85%
  - Legumes – 0.84%



Solomons NW et al. Studies on the bioavailability of zinc in man. II. Absorption of zinc from organic and inorganic sources. J Lab Clin Med. 1979, 94(2):335-343.

CARNIVORE DIET

Versions of Carnivore

LEVEL 1

- Beef and Salt
- All parts of the cow.
  - Steaks, ground beef, suet, tallow, organs meats like liver, tongue, kidneys, tripe.
- Salt
  - No spices at this level, spices are plants
- Duration depends on your goals

LEVEL 2

- All Animal Proteins
- Beef, bison, pork, chicken, poultry, fish, seafood, shellfish
- Animal fats like tallow, suet, lard, schmaltz
- Salmon roe and other roes
- Organ meats like liver, kidneys, tripe, brains
- Salt
- Fish Sauce

LEVEL 3

- Everything from Level 1 and 2
  - Eggs
    - all kinds, duck, chicken, etc.
  - Dairy
    - Butter, ghee
    - Cheese
    - Heavy Cream

LEVEL 4

- Everything in Levels 1, 2 and 3
  - Spices: garlic and onion
  - Zero carb sauces
    - Mustard, Vinegar
  - Supplements
    - Ashwaganda, CBD oil
  - Coffee, Tea, Zevia
  - Stevia (which is known to help kill Lyme)
  - Kettle and Fire Broth

SUPPLEMENTS ON CARNIVORE

- HCL and Digestive enzymes
  - Starting out, some need these to adjust to eating more meat until the body catches up
  - https://amzn.to/2OmnO1S
  - https://amzn.to/2oRpsxQ
- Emu oil (not Evening Primrose Oil)
  - https://amzn.to/31KoWQN
- Magnesium, potassium, zinc
- All amino acids are carnivore friendly (l-carnitine, tyrosine, tryptophan, glutamine, theanine).
- ORGAN SUPPLEMENTS: http://bit.ly/2MREWfR
- Sole water

BONE HEALTH ON CARNIVORE

- Bone Health when keto and Carnivore (4-years keto, 1-year carnivore)

https://www.youtube.com/watch?time_continue=4&v=uXrdP06tfdw

WHY KETO CARNIVORE IS GOOD FOR BONE HEALTH

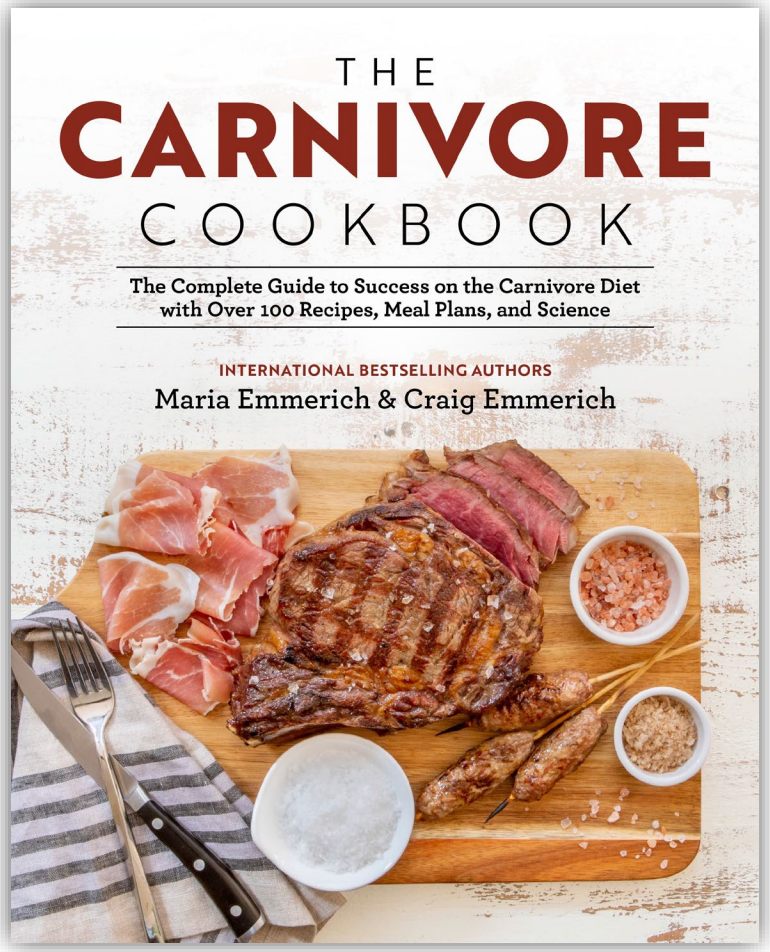
- Starvation Mode: only with carbohydrates.
  - As a glucose burner, you run out of glucose so after 2-3 hours your body steals from your lean mass or bones for fuel.
    - Sleeping 8-10 hours without waking up to eat (which my brother did as a body builder)
      - You use lean mass and bone tissue for fuel!
  - If you are keto carnivore, you use fat for fuel!
- Adding Vitamin K2 helps get calcium into the bones!
  - Statin drugs ROB you from K2!

CARNIVORE AUTOIMMUNE PROTOCOL

Versions of Carnivore

CARNIVORE AUTOIMMUNE PROTOCOL (CAIP)

- For people with chronic issues where Keto helps, but doesn't eliminate symptoms
- Great for:
  - Autoimmune issues
  - Lyme and many other chronic conditions
  - Fibro
  - Bipolar, anxiety and other mood disorders
  - GI issues
  - Eczema and other skin issues
  - Many others



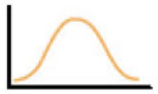
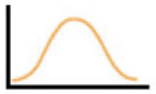
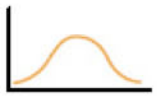
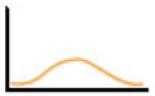
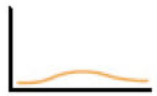
CAIP PROCESS

- Eat Level 1 for 30 days
- Slowly add proteins from Level 2
  - Give each new protein 7 days to gauge for reactions before adding another
- Add Eggs OR Dairy
  - First try adding eggs for 7 days
  - Then try dairy
    - Dairy is a very common allergen, add this last
- Experiment with adding spices and level 4 foods
  - Spices, Zero carb sauces, etc..

CARNIVORE FOR WEIGHT LOSS

How Carnivore Leverages our Biology to Enable Weight Loss.

OXIDATIVE PRIORITY

Meal Input	Alcohol	Exogenous Ketones	Carbohydrate	Protein	Fat
Oxidative Priority	1	2	3	4	5
Storage System	–	–	Blood [glucose], glycogen	Limited [plasma AA]/tissue	Adipose (fat)
Storage Capacity	Zero	Zero	1,200–2,000 calories	360–480 calories	Unlimited
Postprandial [Blood]					
DIT [Thermogensis] (4–6 hours after meal)	 15%		 8%	 25%	 3%

- How our bodies deal with Macro nutrients

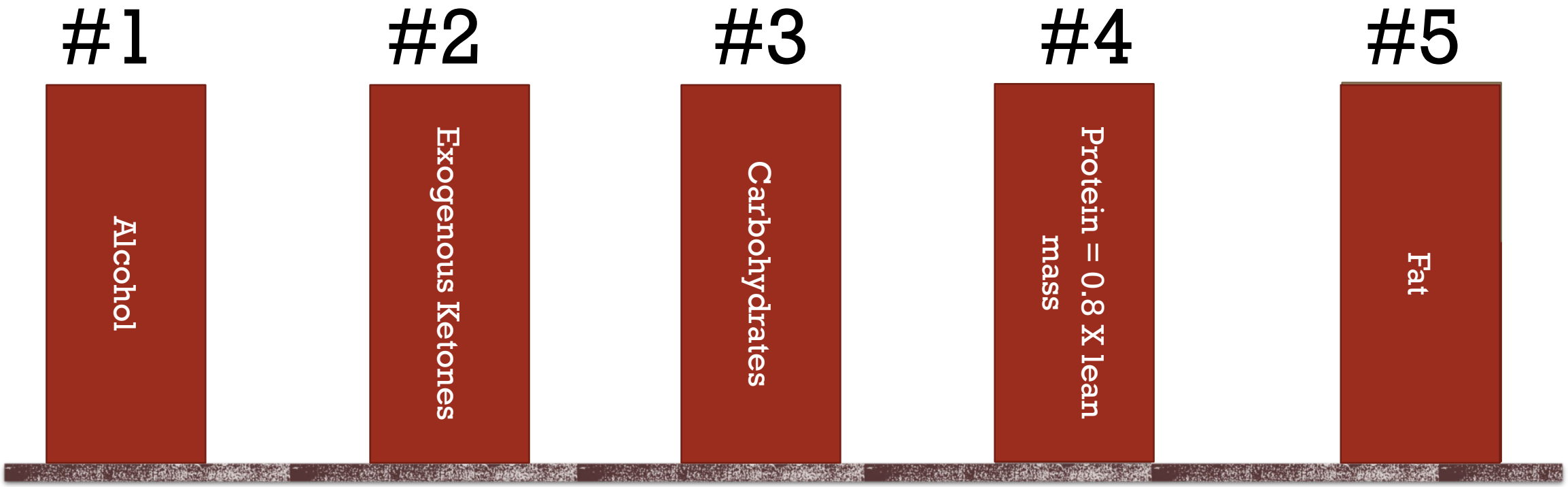
Source: "Keto." by Maria and Craig Emmerich

Original source: Oxidative Priority, Meal Frequency, and the Energy Economy of Food and Activity: Implications for Longevity, Obesity, and Cardiometabolic Disease, Sinclair, Bremer, etal, February 2017

WHY KETO CAN BE SO HELPFUL FOR WEIGHT LOSS

- Available Fuels to the body.

When Keto Adapted body is primed to use fat as fuel, Dietary or Body fat.



MAKES THINGS REALLY EASY

- Carbs
  - Don’t need to count, they will be very low
- Protein
  - Don’t generally need to count as you should hit your protein goal (as long as you aren’t doing bullet proof coffee, etc..)
- Fat
  - Only thing you need to count if weight loss is the goal. Adjust down for weight loss, up for maintenance or gaining.

WEIGHT LOSS CARNIVORE

- Start at level 1 or 2 for 30 days (no eggs or dairy)
- Try introducing eggs for a week.
  - See how it effects you.
- After a month try adding dairy for a week. See if you retain water
  - Weigh yourself in the morning, have dairy that day then weigh yourself the next morning. If you gain weight (retain water) and hold onto it when having dairy, that is a sign you are sensitive and should continue to omit.
- You can also try adding some Level 4 spices and sauces if you like
- If weight loss stalls, remove dairy again

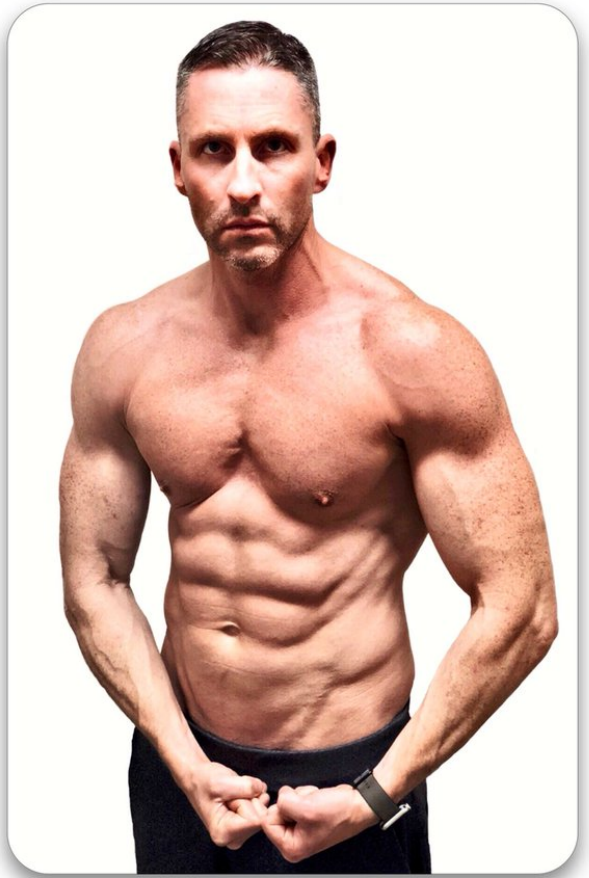
EXERCISE

AUTOPHAGY

- Autophagy is the natural, regulated mechanism of the cell that removes unnecessary or dysfunctional components. It allows the orderly degradation and recycling of cellular components.
  - What is BETTER than extended fasting for Autophagy???
    - EXERCISE!
      - You won’t lose lean mass!

EXERCISE WHEN CARNIVORE

- For performance: add more fat
  - Suet, Lard, Tallow
  - Butter, Ghee, Cheese
  - Yolks
  - Higher Fat meats: ribeye vs loin
- For weight loss: add more protein
  - Chicken breast vs Thighs
  - Pork loin vs pork butt
  - Leaner hamburger
  - My keto bread



ENERGY

- Drink more water
- Add extra Electrolytes
  - Your body releases much of the salt and associated water it holds onto with high carb diets
- Add extra Salt, Potassium and Magnesium
  - Helps reduce “Keto Flu”, increase energy, etc..
  - IF you do not add salt, you will leach potassium and magnesium!

EXAMPLE: LUIS FROM KETOGAINS

- Luis (ketogains.com) is a very muscular man in maintenance (and gaining muscle)
- Eats 1 meal a day. 1,300 to 1,900 calories
  - In Spain his plate is FILLED with lean proteins, no added fats/cheese/sauces.

EVER GAIN WEIGHT TRAINING FOR A MARATHON?

- I did! Exercise timing can change hormones:
  - Cortisol
  - Also depletes you of IRON (Ferritin)… even Men!
  - Don’t focus on just cardio and do not run later in the day!
  - Best is combination
    - HITT
    - Heart rate up, then strength train
    - Switching back and forth

EXERCISE

- Strength Training and Cardio
  - HITT: High intensity exercise builds healthy mitochondria
  - Biting my lip as I type this, “cardio” is the best way to increase AMPK and induce mitochondrial biogenesis.
    - Slow twitch muscle fibers (for endurance training) contain the most mitochondria
    - Training slow twitch fibers also target more muscle mitochondria

EXERCISE TIMING

- Weight loss is all about HORMONE MANIPULATION
  - When to work out
  - Cortisol is Naturally high in Morning
    - Don’t increase it later in the day
  - Human Growth Hormone vs Insulin
    - You burn 300% more body fat in the morning on an empty stomach because your body does not have any glycogen or stored carbohydrates/sugar in the liver to burn.
      - Your body goes directly into the fat stores
      - You also increase your human growth hormone levels; which is the fat-burning hormone. The human growth hormone and insulin counteract each other.

BENEFIT FROM THE AFTER-BURN

- In ketosis (not if you are a sugar-burner)
  - WAIT to eat after exercise UNTIL YOU ARE HUNGRY!
  - After-burn effect:
    - You keep human growth hormone high and keep burning fat until you eat
  - IF you are a sugar-burner or do “carb ups” your muscles will want glycogen and uptake sugar or break down muscle to make glucose
    - Another benefit of ketosis.
    - This is why carb ups or cheat days make you LOSE MUSCLE

BENEFITS OF EXERCISING IN KETOSIS

- Uses less BCAA's
  - BCAA oxidation rates usually rise with exercise, which means you need more if you are an athlete. BUT in keto-adapted athletes, ketones (and free fatty acids) are burned in place of BCAA
- Recovery time is quicker
  - Can lift weights everyday if wanted
    - Don't need to wait 48 hours like carb loaders do
    - Produces less oxidative stress while exercising, which speeds recovery time in between exercise sessions. This is why I was able to run every day while training for my marathons.
- We store over 40,000 calories as fat (in lean people)
  - But we can only store 2,000 calories of carbs

DO NOT EXERCISE TO EAT MORE!

- It takes 3,500 calories to burn a pound of fat
  - That is a marathon and a half!
- Exercise for mitochondrial benefits & muscle mass, not extra calories!
- If exercise stimulates hunger, then focus on walking and yoga
  - Especially if doing extended fasting

SIMPLICITY

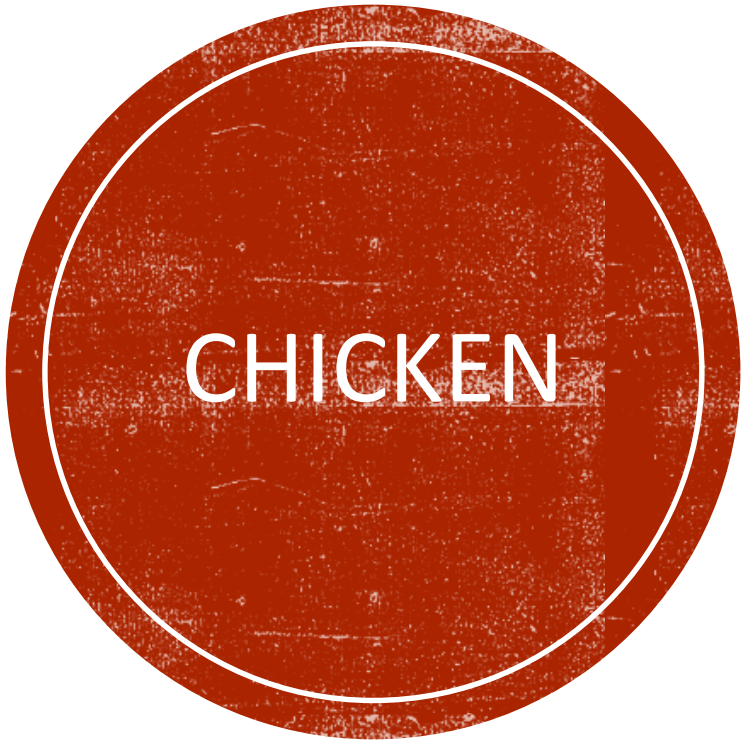
Carnivore made easy.

ADJUSTING BASED ON GOALS

- Just move up and down the energy to protein ratio charts
- If you want more weight loss, move up (and cut dairy)
- If you want to maintain or gain, move down.

Beef cuts per 4 ounces	Calories	Fat	Protein	Carbs	P/E ratio
tenderloin steak	115	3.0	22.2	0.0	7.40
Beef Heart	187	5.4	32.2	0.2	5.96
Beef Kidney	179	5.3	31.0	0.0	5.85
sirloin tip side steak	190	6.0	34.0	0.0	5.67
Beef Liver	216	6.0	33.0	5.8	5.50
sirl					4.43
sl					4.38
					4.00
					2.09
					2.00
chuc					2.00
					1.91
					1.64
t					1.38
					1.30
c					1.17
					0.95
					0.87
Rib Eye Steak	310	25.0	20.0	0.0	0.80
Beef Back Ribs	310	26.0	19.0	0.0	0.73
tri tip roast	340	29.0	18.0	0.0	0.62
boneless short ribs	440	41.0	16.0	0.0	0.39

Many more Charts In The Carnivore Cookbook

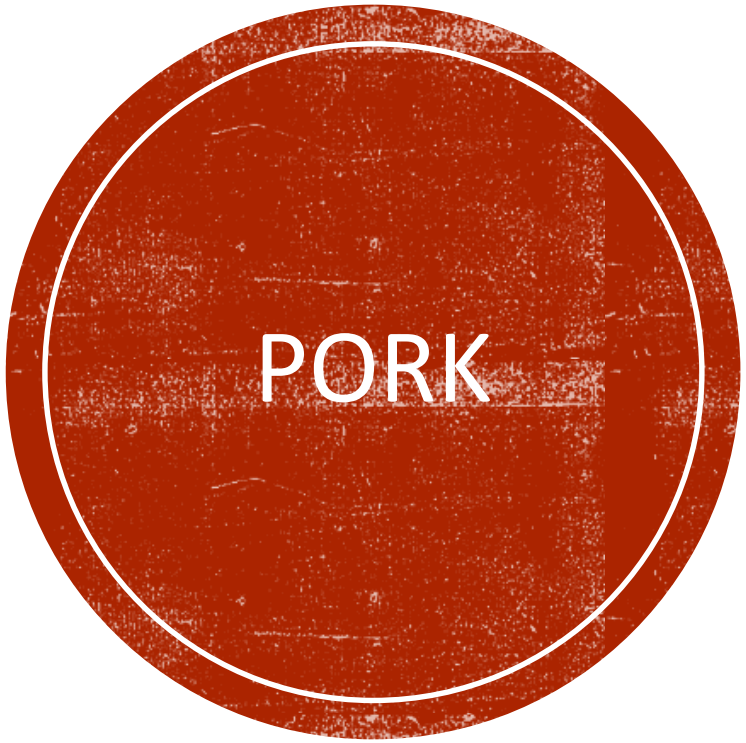


Chicken and Poultry (4 ounces)	Calories	Fat	Protein	Carbs	P/E ratio
Chicken gizzards	175	3.0	34.5	0.0	11.50
Chicken Breast Skinless	138	4	25	0	6.25
Chicken Liver	189	7.4	27.7	1.0	3.74
Chicken Breast Skin on	200	8.4	31	0	3.69
Chick					3.23
					2.45
Chi					2.22
					2.12
Chick					1.93
Chicke					1.90
					1.89
Chicke					1.61
Chi					1.38
					1.14
Chicken skin	514	46.0	23.0	0.0	0.50

Many more Charts In The Carnivore Cookbook

Fish Type (4 ounces)	Calories	Fat	Protein	Carbs	P/E ratio
Tuna (canned)	149	1.06	32.91	0	31.05
Cod	113	1	26	0	26.00
Crappie	132	1.34	28.2	0	21.04
Blue Gills	133	1.34	28.2	0	21.04
M					21.00
					9.90
S					9.00
					8.77
					6.53
					3.44
					3.26
Fi					2.50
S					2.40
A					1.76
M					1.33
Herring	283.5	20.2	23.8	0	1.18

Many more Charts In The Carnivore Cookbook



Pork (4 ounces)	Calories	Fat	Protein	Carbs	P/E ratio
Tenderloin	158	4	30	0	7.50
Pork liver	187	5.0	29.5	4.3	5.90
					2.75
M (Co					1.56
					1.06
Por (p					0.98
					0.89
					0.83
Loin back ribs (Baby Back Ribs)	315	27	18	0	0.67
Belly	588	60	10.4	0	0.17

MAKING IT EASY!

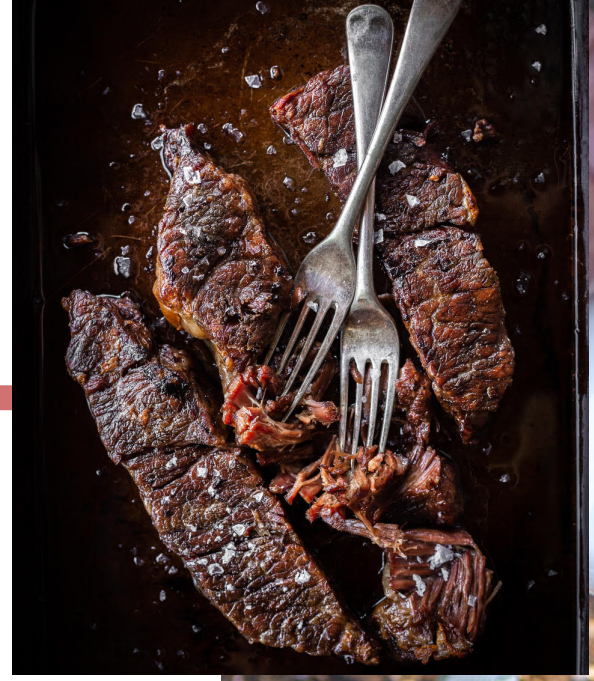
- Skip the store and order online!
- Cheaper in most cases compared to local grocery store
- Delivered to your door!
  - Butcherbox : http://bit.ly/2qyH4K6
    - Grass-fed beef, chicken, salmon, wings
  - US Wellness Meats: http://bit.ly/2IrMPox
    - Grass-fed steaks, organ meats, sausages, hot dogs, sugar-free liverwurst
  - Sizzlefish: http://bit.ly/2v0NNjv
    - Fish and seafood

MEAL EXAMPLES

CARNIVORE VS ZERO CARB

LEVEL 1

- Beef and Salt
  - Steaks: grilled steak seasoned with salt
  - Beef short ribs: confit short ribs in suet
  - Burger: ground beef and ground liver, season with salt and grilled or pan fried in suet
  - Beef Brisket: seasoned with salt
  - beef liver
  - beef heart: slice into steaks and grilled
  - Jerky: slice tenderloin, season with salt and dehydrate
  - suet
  - tallow



LEVEL 2

- Beef, Salt AND Poultry, Fish, Seafood and Pork
  - Shrimp: grilled, broiled, sautéed in tallow or duck fat
  - Lobster: grilled, air fried, poached
  - Crab: steamed
  - Salmon: seasoned with salt and grilled, pan fried
  - Fish: halibut, walleye, cod, tuna
  - Poultry: chicken thighs, legs, breasts, seasoned with salt
  - Duck: duck confit
  - Lard
  - tallow

LEVEL 3

- Everything from Level 1 and 2 AND Eggs and Dairy
- Eggs and Dairy are common allergens
  - PREFERABLY start with adding eggs before dairy
    - scrambled eggs
    - hard boiled eggs
    - Ghee, Butter, Cheese, Heavy Cream, Cream Cheese, Sour Cream
      - Carnivore sandwich
      - Breakfast burgers with egg and hollandaise
      - Crab legs with melted butter
      - Lobster with melted butter
      - Steak with melted butter

LEVEL 4

- Everything from Levels 1, 2, 3 and

adding mushrooms and seasonings
  - Fresh ground pepper
  - Mushrooms
  - Mustard
  - Spices (to make my Ranch dressing)
    - Steak with Garlic butter and fried mushrooms
    - Lobster with Garlic butter
    - My meatloaf with chopped mushrooms

- We call this “Dirty Carnivore” and it works for those who are not dealing with autoimmune disease or Lyme.

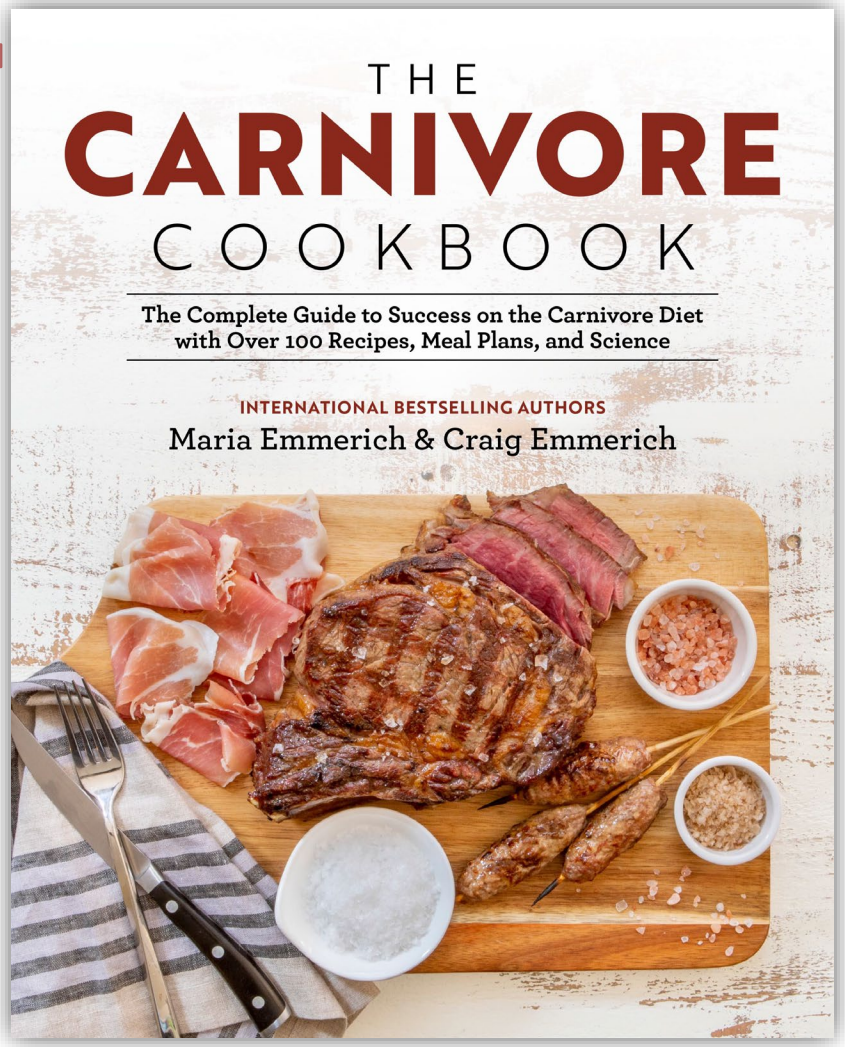
THINGS THAT ARE NOT CARNIVORE

- Coffee
- Pepper
- Spices – they are from plants
- Vinegars
- Stevia, sweeteners
- Coconut oil, avocado oil, MCT oil

OUR SERVICES

COMING IN JANUARY 2020!

- Tons of great science and information.
- Detailed protein guide
- Over 100 tasty Carnivore recipes
- Carnivore Meal Plans
- CLICK HERE to preorder.



MY SERVICES

- NEW Keto Courses (CLICK HERE) (Carnivore course coming soon!!)
  - All NEW! Amazing Videos and Interactive Meal Plans
  - Weekly Live Webinars for VIP Members
- Keto-Adapted.com (CLICK HERE)
  - Tons of support options including weekly webinar and meal plan generator
  - Over 800 exclusive recipes (over 100 carnivore recipes)
- MariaMindBodyHealth.com
  - Blog with lots of free resources and personal consulting options.

BECOME A

Last Day to Sign Up is Today!

KETO COACHING CERTIFICATION

Check it out: https://keto-adapted.com/keto-coach/