

Are we designed to eat meat? The controversy.

From a behavioral viewpoint, we are **omnivores** as we consume large amounts of plant and animal-based products. From a biological perspective, anatomically and physiologically, we have all the characteristics of **herbivores**. In this short article, I will address the **B12** dilemma and **our ancestors** as they are common arguments to consume meat.

Let's start with looking at simple biological facts:

- ✓ The **appendices** of carnivores are claws while the appendices of herbivores are hands or hooves.
- ✓ Carnivores have long, sharp **teeth** while herbivores have flat teeth. No, we don't have K9s, we have grain teeth for grinding grains, nuts, seeds, fruits and vegetables.
- ✓ Herbivores and men grind with their **jaw** while carnivores only move their jaw up and down.
- ✓ The **intestinal tract** of carnivores is short (3x body length) while the intestinal tract of herbivores is long (12x body length). A short intestinal tract enables carnivores to expel the putrefying flesh rapidly and avoid toxemia. Herbivores and men have a longer and more complicated intestinal tract to allow for the effective digestion of plants and vegetables.
- ✓ Carnivores have different types of intestinal bacteria than herbivores and men.
- ✓ Herbivores don't have the **stomach acidity and capacity** of carnivores. Carnivores secrete 10x more hydrochloric acid than herbivores and humans. When the stomach of carnivores is full, the pH is <1. This is more acidic than a car battery and can dissolve bones, hooves, and even metal. The pH of herbivores when the stomach is full is approximately 4.5-5. The difference in pH is several orders of magnitude. If the pH in humans would be the same as in carnivores, it would burn a hole in our stomach and kill us.
- ✓ The **liver** of carnivores is relatively much larger than the liver of herbivores and men and their **lipoprotein metabolism** is much faster and effective. No matter how much fat carnivores consume, they can clear it from their system fast and easily. Carnivores never have any blockages of their arteries and never develop fatty liver disease. Humans are prone to blockages and fatty liver disease when their diets are high in animal fat because humans do not have the ability to process animal fats like that.

- ✓ The **bile** of carnivores is so strong that it can suspend large amounts of fats, including saturated fats. Carnivores are designed to eat high fat diets. Our bile is simply a weak detergent that emulsifies the fat in our diet so that it can be absorbed in our bloodstream (oil and water don't mix). When we consume high fat foods, our bile is not strong enough to suspend all these fats. Coagulation then forms gallstones. Did you know that Asian people used to drink bear bile to dissolve gallstones?
- ✓ The **saliva** of carnivores does not contain the enzyme ptyalin which initiates carbohydrate digestion. Herbivores and men do.
- ✓ Carnivores **cool** their body by panting (sweating through their tongue) while most herbivores and men sweat through their skin.
- ✓ Carnivores drink **fluids** by lapping while herbivores sip.
- ✓ Carnivores produce their own **vitamin C** while herbivores and men must obtain vitamin C from their diet.
- ✓ Herbivores have trichromatic **vision** while carnivores have dichromatic vision. Trichromatic vision allows us to see more colors to identify fresh, ripe fruit for example.

Additional facts for thought re. flesh eater vs. human:

- ✓ Real flesh eaters take nourishment from parts of the whole prey, not just the muscle meat as men tends to do.
- ✓ Meat is the least nutrient dense part of the animal.
- ✓ Real flesh eaters immediately consume their prey after the kill, maximizing the nutrient and protein value of the meal. Our meat is dead flesh prior to consumption.
- ✓ Men seldom eat raw meat. Men cook meat as to disguise it from the dead corpse it really is. We cook the meat to kill the bacteria, but we also denature the nutrients.
- ✓ When we observe animals, we don't think of them as a meal. We don't salivate observing them.

The B12 dilemma:

B12 is not produced by animals. B12 comes from bacteria found in traces of dirt (in our soil) and water from rivers and streams. Animals are just the middleman for B12. Today, farm animals don't ingest any B12, so they now often receive B12 injections. Meat eaters also show low levels of B12. The solution for both meat and non-meat eaters is to supplement with B12.

Our ancestors – Clearing up the confusion:

Prior to our ancestors inventing and using tools, they were 100% herbivores. With increased technology and tools, behavior modification occurs. Today, a person can be obese and nutrient deficient at the same time.

When bones and tools of our ancestors were discovered, the assumption was that our ancestors consumed lots of meat, based on the tools they had. However, when scientists more recently had the technology to test the strontium levels in bones, the conclusion was that our ancestors were mainly plant eaters.

Keep in mind that the life expectancy of our ancestors was only 25 years of age and that the genes for reproductive age must be passed along by any means. Adding meat was a selective adaptation and the only way to add more calories to their diet and prevent starvation.

Today, we live to be 70, 80, 90 and even 100 years and we don't have to worry about getting enough calories. What we do need to worry about is the health ramifications of meat and animal protein, such as cardiovascular disease and cancer. Note that every study conducted, listing positive effects of a diet on human health, is a plant-based diet.

Scientific research related to meat and animal protein:

Thousands and thousands of scientific, peer-reviewed, published studies clearly indicate the detrimental effects of animal products and the positive effects of plant-based diets on human health. However, I would like to emphasize some interesting facts:

- ✓ Meat impairs endothelium function (blood flow). After meat consumption, blood plasma is cloudy d/t circulating animal fat, which lasts up to 6-7 hours. This results in lack of energy, fatigue, muscle soreness, longer recovery times, and less, softer erections in men.
- ✓ Consumption of animal protein causes the formation of inflammatory compounds, including Neu5GC, endotoxins and heme iron. A study of 130,000 patients shows that 1mg of heme iron per day increases coronary heart disease by 27%. Note that one burger for example produces 2-3mg of heme iron.
- ✓ Animal meat changes the microbiome and increases inflammation by approx. 70%. According to a 10-years research study including over 1000 papers, conducted by Cleveland Clinic (2011), animal derived products such as red meat, egg yolk and full-fat dairy are abundant in

choline and L-carnitine which promote inflammatory mediators such as TMAO (trimethylamine N-oxide). TMAO accelerates atherosclerosis and fibrosis. Contrary, a plant-based diet provides antioxidants, phytochemicals, minerals, and vitamins which reduce inflammation.

- ✓ Neu5Gc is a non-human sialic acid found in animal products. When consumed, humans can't convert Neu5Gc to Neu5Ac, so Neu5Gc then causes our body to make antibodies. These antibodies cause inflammation in the blood vessels. Long-term exposure shows this may cause mostly colon, prostate, and ovary cancer.
- ✓ Alpha-gal is a sugar molecule found in meat (pork, beef, rabbit, lamb, venison, etc.) and products made from mammals (including cow's milk, dairy, gelatin) and can cause AGS (alpha-gal syndrome or aka. red meat allergy or tick bite meat allergy).
- ✓ Animal protein and fat are pro-inflammatory and the cause of most degenerative diseases and cancers while plant-based diets show lower markers for most diseases.
- ✓ Processed meat is classified as a Class 1 carcinogen by the WHO (World Health Organization), alongside tobacco and asbestos.
- ✓ Glycogen stores are our source of energy, not animal protein.
- ✓ Meat is very acidic and contains a lot of uric acid. Uric acid leaches calcium from the bones. Meat eaters have the weakest bones.
- ✓ Studies indicate that meat consumption causes cortisol levels to rise and testosterone levels to drop. When testosterone levels drop, estrogen may become dominant. In men, meat eaters tend to have less erections and softer erections.

Meat production and the environment:

Meat production has a significant impact on the environment. Here are some of the ways it impacts our environment:

- ✓ Land use: Meat production requires vast amounts of land for grazing, feed production, and animal housing. This can lead to deforestation, habitat loss, and soil degradation.
- ✓ Water use: Meat production requires large amounts of water, both for the animals and for growing feed crops. This can lead to water scarcity and depletion of freshwater resources.
- ✓ Greenhouse gas emissions: The livestock industry is a significant contributor to greenhouse gas emissions, particularly methane and nitrous oxide.

- ✓ Air and water pollution: Animal waste from meat production can contaminate air and water with nitrogen and phosphorus, which can lead to harmful algal blooms and aquatic dead zones.
- ✓ Biodiversity loss: Habitat loss, deforestation, and pollution from meat production can lead to loss of biodiversity and wildlife.
- ✓ Antibiotic resistance: The use of antibiotics in meat production can contribute to the development of antibiotic-resistant bacteria, which can pose a threat to human health.
- ✓ Energy use: Meat production requires significant amounts of energy for transportation, processing, and refrigeration, which contributes to carbon emissions and energy use.

Overall, the environmental impact of meat production is significant, and reducing meat consumption and transitioning to more sustainable agriculture practices is important for mitigating these impacts.

My advice:

The meat and dairy industry have done a fabulous job of propagating their products, but science clearly shows how dairy and meat have significant health ramifications. Biologically, we are herbivores. I'm not telling you to stop consuming meat and animal products. I'm merely suggesting that you consider gradually reducing the intake of animal products and gradually transition to a healthier diet. You will experience more energy and feel better quickly. It will make a huge difference re: your health and the health of your loved ones. If many of us started consuming less animal products, it also would make a significant positive impact on our environment and prevent the unnecessary and often cruel slaughter of innocent animals. Be the change you can be.

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