

Seconde, DNL, How to feed the world debate : **Shall we become vegetarian ?**

## **Debate 4: "Shall we become vegetarian?"**

### **Videos**

Video from Asapscience : What If The World Went Vegetarian?

<https://www.youtube.com/watch?v=ANUoAdXfA60>

Vidéo de plantyful health : A Vegetarian Diet is WORSE for the Environment Than A Meat-Eating Diet

<https://www.youtube.com/watch?v=muMRxdi2b40>

### **Articles**

What is a vegetarian? – from Vegetarian society website

<https://www.vegsoc.org/definition>

Vegetarianism worldwide.

[https://www.reddit.com/r/vegetarian/comments/6tr35u/vegetarianism\\_worldwide\\_these\\_are\\_the\\_only/](https://www.reddit.com/r/vegetarian/comments/6tr35u/vegetarianism_worldwide_these_are_the_only/)

6 Ways Being a Vegetarian Could Seriously Mess You Up

Catherine Schreiber, *The Cosmopolitan*, 2 march 2016,

<https://www.cosmopolitan.com/health-fitness/a54533/is-being-a-vegetarian-bad-for-your-brain/>

Lettuce Produces More Greenhouse Gas Emissions Than Bacon Does

Brittany Patterson, *American Scientist*, 15 december 2015

<https://www.scientificamerican.com/article/lettuce-produces-more-greenhouse-gas-emissions-than-bacon-does/>

Why Go Veg?

Vegetariantimes, June 15 2007

<https://www.vegetariantimes.com/health-and-nutrition/why-go-veg-learn-about-becoming-a-vegetarian>

5 reason a vegetarian diet is good for you

Cameron Wells, *The Independent*, 27 october 2015

<https://www.independent.co.uk/life-style/health-and-families/features/5-reasons-a-vegetarian-diet-is-good-for-you-a6710096.html>

## **What is a vegetarian? – from Vegetarian society website**

The Vegetarian Society defines a vegetarian as follows:

"A vegetarian is someone who lives on a diet of grains, pulses, legumes, nuts, seeds, vegetables, fruits, fungi, algae, yeast and/or some other non-animal-based foods (e.g. salt) with, or without, dairy products, honey and/or eggs. A vegetarian does not eat foods that consist of, or have been produced with the aid of products consisting of or created from, any part of the body of a living or dead animal. This includes meat, poultry, fish, shellfish\*, insects, by-products of slaughter\*\* or any food made with processing aids created from these."

\* Shellfish are typically 'a sea animal covered with a shell'. We take shellfish to mean;

Crustaceans (hard external shell) e.g. lobsters, crayfish, crabs, prawns, shrimps

Molluscs (most are protected by a shell) e.g. mussels, oysters, winkles, limpets, clams, etc. Also includes cephalopods such as cuttlefish, squid, octopus.

\*\* By-products of slaughter includes gelatine, isinglass and animal rennet.

There are different types of vegetarian:

Lacto-ovo-vegetarians eat both dairy products and eggs; this is the most common type of vegetarian diet.

Lacto-vegetarians eat dairy products but avoid eggs.

Ovo-vegetarian. Eats eggs but not dairy products.

Vegans do not eat dairy products, eggs, or any other products which are derived from animals.

Some people may be vegetarian for religious reasons. Jains, for example, are either lacto-vegetarian or vegan, while some Hindus and Buddhists may choose to practice a vegetarian diet.

Eggs: Many lacto-ovo vegetarians will only eat free-range eggs. This is because of welfare objections to the intensive farming of hens. Through its Vegetarian Society Approved trademark scheme, the Vegetarian Society will only license its trademark to products containing free-range eggs where eggs are used.

## **6 Ways Being a Vegetarian Could Seriously Mess You Up**

**Catherine Schreiber, The Cosmopolitan, 2 march 2016**

Going meatless can be awesome for your physical health as well as the planet's, but being a vegetarian doesn't come without its own risks. Whether you've lived meat-free for years or you're just about to get started, here are six health risks all non-animal eaters need to look out for.

### 1. Low Vitamin D

Yes, you can get vitamin D from plant sources and supplements. But there's a certain version of vitamin D (D3, that is) that only comes from animals. Sorry. Be sure to bump up your calcium supplementation if you're cutting out meat because low D levels, which is common among vegetarians — and especially vegans — can lead to brittle bones. Low calcium is also a common problem among non-meat-eaters.

### 2. Not Enough Zinc

Beef and lamb are two of the highest sources of zinc. So it's easy for those who keep these items out of their mouths to not get enough of the mineral that undergirds your immune function. Luckily, the third-highest source of the stuff is sunflower seeds. Enjoy the excuse to pop open a bag and crunch some if you're feeling under the weather.

### 3. Anemia

Animal proteins are a prime source of iron, which helps your blood cells transport nutrients throughout your bod. Low iron levels can lead to a condition called anemia, which makes you fatigued, increases your heartbeat, and leaves you more winded from climbing the stairs.

Anemia's a common problem for vegetarians but you can offset your risk of the issue by bulking up on leafy greens, nuts, and soy. Even better: CHOCOLATE.

### 4. Anxiety

In 2012, scientists compared the mental health exams of over 240 vegetarians and 240 meat eaters. They found a noticeably higher rate of psych issues among those who didn't consume animal protein. Thirty-one percent of vegetarians met the criteria for an anxiety disorder, whereas just 13 percent of meat-eating folks followed suit.

Nutrient deprivation could be one explanation for why there's more anxiety among vegetarians. But how about the stress of worrying whether you can ever eat anything at the restaurants your friends pick, or fielding judgment for your eating habits, or feeling the strain on your wallet because seitan is friggin' expensive?

### 5. Depression

The same study also found that vegetarians were more depressed. Twenty-four percent of plants-only eaters suffered from the issue compared to 10 percent of the carnivorous crowd.

The researchers reasoned it might have to do with low vitamin B12 levels, which has been linked to depression — and can happen when you're not eating meat (since poultry and four-legged creatures are prime sources of it.) But they also noted that feeling blue might incline people to try out a vegetarian diet as an attempt to make themselves feel better through (supposedly) healthier habits.

### 6. Eating Disorders

If you thought your friend's veganism was always a cover for something more sinister, your hunch might be spot on. Nearly 4 percent of the vegetarians in the above study said they'd binged, purged, taken diet pills, or severely restricted their food intakes over the course of their lives. Only 0.8 percent of the meat eaters said the same.

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Another study found that people who'd received treatment for an eating disorder were four times more likely than the general population to never eat meat. Other research suggests about half of all people with an eating disorder (especially anorexia) eat some form of a vegetarian diet.

No, not all vegetarians and vegans need to check into an inpatient facility. But if you can't stop obsessing over the avoidance of animal protein or you panic about no vegan options being nearby when you're starving, your dietary choices may be a red flag signaling deeper issues.

**Lettuce Produces More Greenhouse Gas Emissions Than Bacon Does**  
**Brittany Patterson, *American Scientist*, 15 december 2015**

Bacon lovers of the world, rejoice! Or at the least take solace that your beloved pork belly may be better for the environment in terms of greenhouse gas emissions than the lettuce that accompanies it on the classic BLT.

This is according to a new study by researchers at Carnegie Mellon University who found that if Americans were to switch their diets to fall in line with the Agriculture Department's 2010 dietary recommendations, it would result in a 38 percent increase in energy use, 10 percent bump in water use and a 6 percent increase in greenhouse gas emissions.

The reason for this is because on a per-calorie basis, many fruits, vegetables, dairy and seafood—the foods the USDA pushes in the guidelines over sugary processed food and fats—are relatively resource-intensive, the study finds. Lettuce, for example, produces three times more greenhouse gas emissions than bacon.

"You cannot just jump and assume that any vegetarian diet is going to have a low impact on the environment," said Paul Fischbeck, professor of social and decision sciences and engineering and public policy and one of the authors of the study. "There are many that do, but not all. You can't treat all fruits and veggies as good for the environment."

The researchers conducted a meta-analysis of life-cycle assessments quantifying the water, energy use and emissions for more than 100 foods. They found fruits have the largest water and energy footprint per calorie. Meat and seafood have the highest greenhouse gas emissions per calorie.

To create a baseline of how many calories the average adult American consumes, the researchers used weight data provided by the Centers for Disease Control and Prevention and calculated how many calories a person would need to consume in order to maintain that weight. The average calories per day came in at 2,390 per day, or about 200 more than recommended. The researchers tacked on an additional 1,230 calories to account for food waste.

"If what your concern is the greenhouse gas emissions or energy or water use of the entire system, I don't think you should leave out large chunks of it," Fischbeck said. "If you want to know how much energy is being consumed, you have to include waste and what is lost from grocery store or dining room table."

That's not to say all vegetables are bad. Onions, okra, carrots, broccoli and Brussels sprouts all have decent environmental footprints. Lettuce, on the other hand, is difficult to grow, harvest and transport. It requires significant amounts of water and energy to produce.

## **Why Go Veg?**

### **Vegetariantimes, June 15 2007**

Learn the reasons to change over to a vegetarian diet, and start eating less meat today—or none at all!

Why are people drawn to vegetarianism? Some just want to live longer, healthier lives. Others have made the switch to preserve Earth's natural resources or from a love of animals and an ethical opposition to eating them.

Thanks to an abundance of scientific research that demonstrates the health and environmental benefits of a plant-based diet, even the federal government recommends that we consume most of our calories from grain products, vegetables and fruits.

And no wonder: An estimated 70 percent of all diseases, including one-third of all cancers, are related to diet. A vegetarian diet reduces the risk for chronic degenerative diseases such as obesity, coronary artery disease, high blood pressure, diabetes and certain types of cancer including colon, breast, prostate, stomach, lung and esophageal cancer.

Why go vegetarian? Chew on these reasons:

You'll ward off disease. Vegetarian diets are more healthful than the average American diet, particularly in preventing, treating or reversing heart disease and reducing the risk of cancer. A low-fat vegetarian diet is the single most effective way to stop the progression of coronary artery disease or prevent it entirely. Cardiovascular disease kills 1 million Americans annually and is the leading cause of death in the United States.

But the mortality rate for cardiovascular disease is lower in vegetarians than in nonvegetarians, says Joel Fuhrman, MD, author of *Eat to Live: The Revolutionary Formula for Fast and Sustained Weight Loss*. A vegetarian diet is inherently healthful because vegetarians consume less animal fat and cholesterol (vegans consume no animal fat or cholesterol) and instead consume more fiber and more antioxidant-rich produce—another great reason to listen to Mom and eat your veggies!

You'll keep your weight down. The standard American diet—high in saturated fats and processed foods and low in plant-based foods and complex carbohydrates—is making us fat and killing us slowly. According to the Centers for Disease Control and Prevention (CDC) and a division of the CDC, the National Center for Health Statistics, 64 percent of adults and 15 percent of children aged 6 to 19 are overweight and are at risk of weight-related ailments including heart disease, stroke and diabetes.

A study conducted from 1986 to 1992 by Dean Ornish, MD, president and director of the Preventive Medicine Research Institute in Sausalito, California, found that overweight people who followed a low-fat, vegetarian diet lost an average of 24 pounds in the first year and kept off that weight 5 years later. They lost the weight without counting calories or carbs and without measuring portions or feeling hungry.

You'll live longer. If you switch from the standard American diet to a vegetarian diet, you can add about 13 healthy years to your life, says Michael F. Roizen, MD, author of *The RealAge Diet: Make Yourself Younger with What You Eat*. "People who consume saturated, four-legged fat have a shorter life span and more disability at the end of their lives. Animal products clog your arteries, zap your energy and slow down your immune system. Meat eaters also experience accelerated cognitive and sexual dysfunction at a younger age."

Want more proof of longevity? Residents of Okinawa, Japan, have the longest life expectancy of any Japanese and likely the longest life expectancy of anyone in the world, according to a 30-year study of

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more than 600 Okinawan centenarians. Their secret: a low-calorie diet of unrefined complex carbohydrates, fiber-rich fruits and vegetables, and soy.

You'll build strong bones. When there isn't enough calcium in the bloodstream, our bodies will leach it from existing bone. The metabolic result is that our skeletons will become porous and lose strength over time. Most health care practitioners recommend that we increase our intake of calcium the way nature intended—through foods. Foods also supply other nutrients such as phosphorus, magnesium and vitamin D that are necessary for the body to absorb and use calcium.

People who are mildly lactose-intolerant can often enjoy small amounts of dairy products such as yogurt, cheese and lactose-free milk. But if you avoid dairy altogether, you can still get a healthful dose of calcium from dry beans, tofu, soymilk and dark green vegetables such as broccoli, kale, collards and turnip greens.

You'll reduce your risk of food-borne illnesses. The CDC reports that food-borne illnesses of all kinds account for 76 million illnesses a year, resulting in 325,000 hospitalizations and 5,000 deaths in the United States. According to the US Food and Drug Administration (FDA), foods rich in protein such as meat, poultry, fish and seafood are frequently involved in food-borne illness outbreaks.

You'll ease the symptoms of menopause. Many foods contain nutrients beneficial to perimenopausal and menopausal women. Certain foods are rich in phytoestrogens, the plant-based chemical compounds that mimic the behavior of estrogen. Since phytoestrogens can increase and decrease estrogen and progesterone levels, maintaining a balance of them in your diet helps ensure a more comfortable passage through menopause. Soy is by far the most abundant natural source of phytoestrogens, but these compounds also can be found in hundreds of other foods such as apples, beets, cherries, dates, garlic, olives, plums, raspberries, squash and yams. Because menopause is also associated with weight gain and a slowed metabolism, a low-fat, high-fiber vegetarian diet can help ward off extra pounds.

You'll have more energy. Good nutrition generates more usable energy—energy to keep pace with the kids, tackle that home improvement project or have better sex more often, Michael F. Roizen, MD, says in *The RealAge Diet*. Too much fat in your bloodstream means that arteries won't open properly and that your muscles won't get enough oxygen.

The result? You feel zapped. Balanced vegetarian diets are naturally free of cholesterol-laden, artery-clogging animal products that physically slow us down and keep us hitting the snooze button morning after morning. And because whole grains, legumes, fruits and vegetables are so high in complex carbohydrates, they supply the body with plenty of energizing fuel.

You'll be more 'regular.' Eating a lot of vegetables necessarily means consuming more fiber, which pushes waste out of the body. Meat contains no fiber. People who eat lower on the food chain tend to have fewer instances of constipation, hemorrhoids and diverticulitis.

You'll help reduce pollution. Some people become vegetarians after realizing the devastation that the meat industry is having on the environment. According to the US Environmental Protection Agency (EPA), chemical and animal waste runoff from factory farms is responsible for more than 173,000 miles of polluted rivers and streams. Runoff from farmlands is one of the greatest threats to water quality today. Agricultural activities that cause pollution include confined animal facilities, plowing, pesticide spraying, irrigation, fertilizing and harvesting.

You'll avoid toxic chemicals. The EPA estimates that nearly 95 percent of the pesticide residue in the typical American diet comes from meat, fish and dairy products. Fish, in particular, contain carcinogens (PCBs, DDT) and heavy metals (mercury, arsenic, lead, cadmium) that can't be removed through cooking or freezing.

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Meat and dairy products can also be laced with steroids and hormones, so be sure to read the labels on the dairy products you purchase.

You'll help reduce famine. About 70 percent of all grain produced in the United States is fed to animals raised for slaughter. The 7 billion livestock animals in the United States consume five times as much grain as is consumed directly by the American population. "If all the grain currently fed to livestock were consumed directly by people, the number of people who could be fed would be nearly 800 million," says David Pimentel, professor of ecology at Cornell University. If the grain were exported, it would boost the US trade balance by \$80 billion a year.

You'll spare animals. Many vegetarians give up meat because of their concern for animals. Ten billion animals are slaughtered for human consumption each year. And, unlike the farms of yesteryear where animals roamed freely, today most animals are factory farmed: —crammed into cages where they can barely move and fed a diet tainted with pesticides and antibiotics.

These animals spend their entire lives in crates or stalls so small that they can't even turn around. Farmed animals are not protected from cruelty under the law—in fact, the majority of state anticruelty laws specifically exempt farm animals from basic humane protection.

You'll save money. Meat accounts for 10 percent of Americans' food spending. Eating vegetables, grains and fruits in place of the 200 pounds of beef, chicken and fish each nonvegetarian eats annually would cut individual food bills by an average of \$4,000 a year.

Your dinner plate will be full of color. Disease-fighting phytochemicals give fruits and vegetables their rich, varied hues. They come in two main classes: carotenoids and anthocyanins. All rich yellow and orange fruits and vegetables—carrots, oranges, sweet potatoes, mangoes, pumpkins, corn—owe their color to carotenoids. Leafy green vegetables also are rich in carotenoids but get their green color from chlorophyll. Red, blue and purple fruits and vegetables—plums, cherries, red bell peppers—contain anthocyanins. Cooking by color is a good way to ensure you're eating a variety of naturally occurring substances that boost immunity and prevent a range of illnesses.

It's a breeze. It's almost effortless these days to find great-tasting and good-for-you vegetarian foods, whether you're strolling the aisles of your local supermarket or walking down the street at lunchtime. If you need inspiration in the kitchen, look no further than the internet, your favorite bookseller or your local vegetarian society's newsletter for culinary tips and great recipes. And if you're eating out, almost any ethnic restaurant will offer vegetarian selections. In a hurry? Most fast food and fast casual restaurants now include healthful and inventive salads, sandwiches and entrees on their menus. So rather than asking yourself why go vegetarian, the real question is: Why haven't you gone vegetarian?

## **5 reason a vegetarian diet is good for you** **Cameron Wells, The Independent, 27 october 2015**

Processed meats - including ham and bacon - have cause cancer, according to a much-anticipated report by the World Health Organisation.

The study suggests that just 50g of processed meat a day, the equivalent of less than two slices of bacon, increases the chance of developing bowel cancer by 18 per cent - so could cutting out meat altogether make for a healthier lifestyle?

We know vegetarian diets can help with weight loss and weight management, thanks to increased fibre intake from plant-based foods, but did you know a vegetarian diet can also help combat several forms of chronic disease and provide your skin with a nice healthy glow? Here are five reasons you may want to consider swapping your beef burger for a beet burger:

### Heart Health

A vegetarian diet that's low in fibre and high in potassium lowers blood pressure, improves total cholesterol, and reduces the risk for both heart attacks and stroke. To reap the benefits, base your meals around four healthful food groups: vegetables, whole grains, fruits, and legumes (a fancy name for beans, lentils, and peas). This winning food combination is naturally low in sodium, high in potassium, and packed with cholesterol-lowering soluble fibre.

### Cancer Prevention

One third of all cancers can be prevented through lifestyle changes, including a healthy diet. When it comes to cancer prevention, think in terms of colour by eating as many hues of the nutrition rainbow as you can each day. You can think of antioxidants like a game of Pac-Man, gobbling up free radicals that promote cancer cell formation and growth. Fibre shows these intruders the way out: For every 10 grams of dietary fibre you consume, you reduce the likelihood of having a polyp in your colon by 9 percent. Especially good sources of fibre-filled, antioxidant-packed fare include cruciferous vegetables, think broccoli, kale, and cabbage; carotenoid vegetables, such as carrots and sweet potatoes; tomato products; and allium vegetables, like onions, garlic, and leeks.

### Good for the Gut

It seems there is no escaping it, we are what we eat. The more we learn about the bacteria that reside in the digestive system, the more we see a relationship between healthful populations of good bacteria and a healthful diet. Choosing plant-based foods supports a diverse microbiome—rich in the positive types of bacteria associated with good health, which support your immune system, reduce inflammation, and regulate ghrelin, the hunger hormone. Include fermented varieties of vegetarian foods, such as water kefir, tempeh, sauerkraut, and kimchi, to diversify your gut bacteria and take your health into high gear.

### Type 2 Diabetes Prevention and Treatment

Diet changes are the first line in defense against diabetes. A diet rich in plant-based foods that is low in fat and primarily whole foods focused (back to your fruits, vegetables, whole grains, and legumes), supplies the body with healthful fuel that contributes to more stable blood sugar levels. One 22-week study shows this style of eating is capable of increasing insulin sensitivity, while lowering hemoglobin A1c levels as much as 1.2 percentage points, a stronger effect than what you'll see with most standard diabetes medications.

### Glowing Skin

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While vegetarian diets help improve internal health, they also come with external benefits, including vitamins, minerals, and antioxidants that support healthy hair, skin, and nails. The key to glowing skin? Swap dairy products, sugar, and high-glycemic foods for carotenoid-packed vegetables—those with a dark green, red, and orange hue. The same phytochemicals that protect the plants work overtime to protect you, too, and emit a radiant colour, resembling a fresh summer glow.

Cameron Wells, M.P.H., R.D., is acting director of nutrition education for the nonprofit Physicians Committee and Barnard Medical Center.