

Researcher 'self-experimented' to compare a vegan diet with eating meat—this is what he found

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Credit: AI-generated image ([disclaimer](#))

Three years ago I was briefly dating a primary school teacher who happened to be a part-time animal rights activist. The experience made me make a decision I've been living with ever since. Veganism.

Last year I concluded that as a scientist I finally needed to study what effect this decision was having on me and decide whether I should stick to [veganism](#) for life or give it up.

By conducting a "self-experiment," the results of which were [recently published](#) in *Physiology and Behavior*, I found that veganism had benefits for my waistline, did not reduce the pleasure I derived from eating and—contrary to [some previous research](#) that suggested a vegan diet could increase the risk of depression—had no effect on my mental health whatsoever.

For most of my adult life I'd dabbled with pescatarian and [vegetarian diets](#), but they never fully stuck. Then single at the beginning of 2020, I was on a dating app looking for love and met the vegan schoolteacher. But not any vegan schoolteacher. A vegan schoolteacher who was passionately vegan for ethical reasons and the belief that any other lifestyle inflicts unnecessary suffering on animals.

By date three or four I'd done my research and veganism convinced me. Animals bred for dairy produce and or to be slaughtered for meat live miserable lives and with decent vitamin supplements, there is no biological need to eat meat, dairy or fish. So I decided it was time to try veganism.

Things didn't really work out with the primary school teacher and there wasn't a date six, but my initial commitment to veganism did last. Then a month or two later, the pandemic hit. During the lockdowns I perfected my vegan culinary repertoire and came out of that period a more knowledgeable and skilled vegan cook.

But coming out of the pandemic revealed something about veganism—often, it's not much fun. Although the number of people identifying as vegan has been [on the rise](#) in recent years and lots of

restaurants have changed their menus to accommodate this need, a lot haven't. At times you need meticulous planning, forward thinking and a keen eye for "vg" symbols on online restaurant menus.

At times I also wondered if I was depriving myself of a great pleasure—enjoyment of food, as surely the more limited meals you can make as a vegan comes at some cost?

Are vegans unpopular?

Something I also noticed, which turns out to be well supported by [academic research](#), is that a lot of people weren't all that fond of us vegans. [Studies](#) indicate that people described as vegan are perceived more negatively, as being less likable and participants in studies report being less open to friendship with vegans than non-vegans, on average. Based on my experience, you can also add "being open to dating" to that list. I was promptly unmatched by multiple dating app matches when veganism came up.

There is a happy ending to my search for love though, as I eventually met my now fiancé. But the anti-vegan bias nearly intervened there too. It was only on our first date that I mentioned veganism and at that point she said she probably wouldn't have met me had she known about it beforehand.

Where does the bias come from? One explanation is the media. [A study of UK news](#) found that 73% of references to vegans were written in a negative light.

Another, perhaps more complicated explanation, is guilt. It has been hypothesized that people often have strong negative attitudes towards vegans to protect or disguise their underlying guilt that they too should be doing more to reduce animal suffering or help the environment.

Although this sounds distinctly Freudian, [some studies](#) have provided evidence in support of this idea.

Questioning veganism

And so, as I struggled to understand my new unpopularity, after a year and half of trying veganism, my commitment started to waver. Around that same time, I came across [a scientific article](#) discussing the possibility that veganism may be bad for mental health. Really?

This caused me to start looking at as much scientific literature I could get my hands on. And it turned out the veganism-mental health link was more complicated than a first look might suggest.

For example, some studies have found that depression is more common among vegans than non-vegans. But that could be because people with depression are more likely to try veganism to improve their mental health. A small number of studies interestingly suggested that vegans are less likely to have overweight or obesity and so veganism may be [beneficial for body weight](#). But again, maybe it's just the case that the type of people who are thin are more likely to be attracted to veganism. However, I couldn't find any scientific evidence on whether vegans derive less pleasure from their vegan diets than non-vegans do from their diets of dairy, meat and fish.

So, at the end of 2021 I decided that I would find out what effect veganism was likely to be having on my own mental health, my body weight and the pleasure I derived from eating. I didn't have scientific grant funding to conduct the gold standard of a large randomized control trial—but I did have the time and inclination to conduct a study on myself.

Self-experimentation

Self-study or "self-experimentation" has [a rich history in science](#) that dates back hundreds of years. Take scurvy as an example. The first clue that vitamin C deficiency was the cause of scurvy was from sailors, which led to the discovery that citrus fruit could treat it.

However, it wasn't until John Crandon [experimented on himself in 1939](#) that convincing evidence was provided for vitamin c deficiency being the cause of scurvy. Crandon, of Harvard Medical School, tactically withheld vitamin c from his diet for 19 weeks and by this point his health had taken a worrying turn for the worse. As he planned, he was then injected with a large dose of vitamin c and made a miraculous recovery. Pretty convincing evidence that scurvy is caused by a deficiency of vitamin c.

But the gold standard for experiments is the randomized control trial. If we were to conduct such a study on the effects of veganism, participants would be randomized to a "treatment" (adopting veganism) or "control" (not adopting veganism). However, in my opinion this approach doesn't quite work for veganism as veganism is more of a self-directed lifestyle choice as opposed to a one size fits all "treatment" we can give to people. Choosing veganism is a very personal choice determined by a range of factors, like health, environmental concerns and animal ethics. A lot of vegans have a strong sense of vegan identity and their veganism hasn't happened by chance (as it would in a randomized control trial).

So simply requiring people to "become vegan" is unlikely to capture what will happen when they adopt veganism of their own accord. [Studies have previously](#) put people on diet plans that are predominantly vegan and found they can lose weight like they do on non-vegan diet plans. But this doesn't encapsulate what it is to naturally adopt a vegan vs. non-vegan lifestyle, with no constraints or particular aims to change one's

health or lose weight.

On top of this, even though veganism has grown in popularity, it's still estimated that only two to three out of every 100 people in the UK [identify as vegan](#), so finding enough people to agree to such a randomized control trial would be difficult. On the other hand, I could find one person that would agree to an experiment on the effects of veganism: me.

My experiment

In January 2022 I started the year, as many others do, by taking part in [Veganuary](#). On a daily basis I recorded what I'd done that day and importantly how much I had enjoyed the food I had eaten.

Every week my fiancé weighed me and measured my waist circumference. So that I couldn't be influenced by any changes happening to my body weight, when we did this, I closed my eyes and was guided onto the scales (she may have been right about avoiding dating vegans after all). I also completed questionnaire measures of depression and anxiety symptoms every week.

During January, I led my normal vegan life but was particularly strict in checking whether food and drink was vegan. My diet looked like a lot of other vegan diets—chickpea curry (check), tofu stir fry (check), lentil pasta (check). I was still eating out and even enjoyed a weekend away. The latter was great, with the exception of a well intended, but very odd, vegan hotel breakfast of stir fried noodles that I tolerated while watching others enjoy a very non-vegan full English. Life rolled on and was enjoyable.

In February I stopped being vegan and repeated the same daily and weekly measures. During the non-vegan period I made a concerted effort

to eat meals that were not vegan. I ditched oat milk for normal milk. I ate cheese, meat and fish rather than my usual diet of tofu, beans and pulses.

A small proportion of the meals I ate still ended up being vegan by chance (about 15%), compared to 100% of my meals being vegan in the vegan study period. My palate did not change over night, I still enjoyed Indian food, Chinese and Italian. But the variety of options available grew as a result of stopping veganism for the month.

As in January, I still ate out and happened to have another weekend trip away, this time to Spain. It was great, with the exception of a culinary experience I wouldn't want to repeat—callos a la madrileña. This is a stew popular in Madrid which includes blood sausage and some very unfortunate looking and smelling tripe.

Phase one of the experiment was now complete. During the two months that made up phase one I diligently measured how often I was drinking alcohol, eating out and exercising (in case for some reason I'd had a particularly unhealthy month) but luckily these things didn't differ much at all between the two months.

After phase one of the experiment I then had a "wash out" period in which I returned to my normal relaxed vegan lifestyle, stopping taking daily and weekly measures. I did however weight myself to keep a record of this and chose to do it to give my fiancé a rest.

Then, in August, I started phase two and changed the order of the vegan vs. non-vegan periods to account for this. Phase two started with two months of non-veganism. I didn't measure anything on a daily basis, as I was worried this may be making me more conscious of my behavior and potentially making me act more healthily than I would be otherwise. The idea that recording one's own behavior can influence subsequent

behavior is well established in psychology and referred to as "[self-monitoring](#)."

Self-monitoring is a tool that is used to help [manage mental health](#), [weight loss](#) and increase adherence to [medicine usage](#).

During this period my fiancé did weigh and measure me every week and I recorded my mental health as in phase one of the experiment. After two months of veganism I reverted to two months of non-veganism from October. December rolled round and I had finally finished my self-experiment.

The results

As a scientist from a psychology background, I am used to looking at both qualitative and quantitative data.

Qualitative data refers to personal experiences in a study. When planning the study, I thought I might have an affirming experience or "defining moment" that committed me to veganism for life or to ditch veganism. That didn't happen. But I did notice a few things.

First, as a non-vegan, some friends and family were keener to hang out with me when food was involved and expressed disappointment during the vegan periods of the study. When switching between non-vegan vs. vegan study periods I also noticed how veganism was acting as a red light to unnecessary eating. For example, when I was slightly tempted by a snack, coffee shop treat or dessert as a non-vegan they were available in abundance and temptation turned into eating.

But as a vegan, those temptations were very often removed due to the complete lack of vegan options available or a meager unappealing offering. We've long known that vegan diets tend to be [lower in](#)

[saturated fat](#), but I hadn't suspected this could be in part due to veganism preventing eating all together.

The quantitative data was really clear cut. My body weight responded consistently in response to vegan vs. non-vegan study periods—it was lower when vegan and higher during non-veganism. During the two-month part of the study, after two months of non-veganism I'd gained 1.6kg, then when switching to veganism for the next two months I lost 1.2kg. I looked at exercise and how much I was moving as potential explanations for these differences, but the data largely suggested that the differences in weight were caused by what I was eating.

The findings also revealed that those differences in body weight did not come at the expense of the pleasure I derived from eating. My rated daily enjoyment of food was close to identical during vegan days and non-vegan days. There was a similar story for my mental health. My weekly recording of depression and anxiety symptoms were close to identical during both study periods.

What does it all mean?

Self-experiments come with lots of caveats. Results come from a single participant and this of course makes you wonder whether the results can generalize to other people. Sometimes they will and sometimes they won't. The results of Crandon's self-experiment on vitamin c and scurvy clearly did generalize.

My results suggest that veganism may have a causal [influence on my body weight](#). Another caveat and limitation of my study is that it was short. I therefore used my results to calculate what would be predicted to happen to my body weight if the experiment had carried on for longer.

I forecasted two scenarios for what would happen over a full year. A

scenario where after the study I remained vegan and a scenario where I gave up veganism. The modeling exercise revealed that under the scenario of giving up veganism I would weight 6.4kg more at the end of 12 months, than if I stuck to veganism. This is a pretty big difference. My findings therefore hint that, in addition to environmental benefits, veganism may also help people maintain a healthy weight.

However, as I'm a fairly health conscious person and cook regularly, it may be the case that a less health conscious vegan that mainly gets by on processed burgers, fries and snacks would experiences less of a [vegan-body weight](#) benefit than I did.

I was pleasantly surprised that my derived pleasure from food did not differ between vegan and non-vegan study days. Concerns over how much a person would enjoy a vegan diet are a likely barrier to giving veganism a go and, based on my study data, these concerns might not ring true.

I've pondered whether veganism is likely to affect mental health and if my study was ever likely to detect such an effect or test it fairly, due to it being so short. But my best bet at the moment is that a [vegan diet](#) probably doesn't causally affect mental health.

When I read studies that show vegans tend to be more likely to be X or Y compared to non-vegans, I am now highly suspect on how likely it is that veganism causes X or Y. X or Y could relate to anything, whether that's physical or [mental health](#). Instead, vegans and non-vegans differ in lots of ways and these differences will not be causal.

Take sex as an example. Vegans are far more likely to be female than male. Do we then conclude from this that veganism makes you more likely to be female? Of course not.

And what did I decide about long-term veganism? As I write this, nine months after the experiment finished, I'm still a committed vegan. For me, the likely benefits for my health, the environment and reducing animal suffering outweigh the minor inconveniences associated with being [vegan](#).

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