

## Introduction

Vegan diets have been increasing in popularity over the past number of years. Now there are vegan restaurants in many cities, vegan menus, and vegan alternatives to any non-vegan dish you can think of! There are multiple reasons for the rise in veganism such as increased environmental awareness, animal rights and health. There have also been a number of documentaries which have pushed people towards a more plant based diet.

Over 250,000 people took part in Veganuary in 2019 (this is where people pledge to go vegan for the month of January). 47% of those who took part planned to stay vegan after completion. Interestingly 44% of people who took part in Veganuary were omnivores or meat eaters before taking the pledge to go vegan for the month of January.

There are many questions that may spring to mind if you're thinking of switching to a more plant-based diet as well as many things you need to consider. This is why we've designed this e-book to answer as many of these questions as possible!

# Is a Vegan Diet Healthier?

So what's the answer? Is a vegan diet healthier? Like anything in nutrition it depends. The label of a diet whether it is vegan, omnivorous, low carbohydrate, gluten free or keto says nothing about the diet's overall healthiness or nutrient density. For example, the diets of two vegans could be completely different.

Vegan diet A is made up of heavily processed meat alternatives, vegan chocolate, vegan pizza with little to no fruit or vegetables, making the diet low in fibre, protein and micronutrients and high in added sugar, saturated fat and salt.

Alternatively, vegan diet B is filled with beans, legumes, nuts, wholegrains, healthy fats like avocado and olive oil and fibrous fruits and vegetables making it high in protein, fibre, healthy fats and micronutrients.

While both diets have the same title of being vegan they are actually very different. Each diet has a very different nutrient profile and

subsequent effect on health. From this we can see that a diet's nutrient value or impact on health is not defined by its title.

A vegan diet can be very healthy and nutrient dense but it does require some careful planning to make sure it's balanced with no nutritional deficiencies. This is because there are some nutrients which are a little harder to source from a plant-based diet. For example, a review of vegan diets in athletes reported that in general vegan diets tended to be lower in calories, protein, fat, vitamin B12, omega-3 fats, calcium and iodine than omnivorous diets making these key nutrients to be aware of.

## Do I Need to go Full on Vegan to Reap the Benefits?

There are so many benefits to eating more plants from increased gut microbiome diversity to increased vitamin and mineral intake to increased fibre intake. But in order to reap these benefits, you don' have to ditch meat, dairy, eggs and all other animal products. Increasing your intake of plant based foods such as fruit, veggies, wholegrains, nuts and seeds will do just that, regardless of whether or not you choose to include animal products.

A 2015 report by the Scientific Advisory Commission on Nutrition (SACN) on Carbohydrates and Health found many scientifically proven benefits with increased fibre intakes. These benefits were a reduction in the risk of developing type 2 diabetes, a reduced risk of cardiovascular disease and a reduced risk of developing colorectal cancer. The benefits were seen with increased fibre intakes, in both omnivores and vegans.

## **Nutritional Considerations on a Vegan Diet**

As mentioned previously, plant-based diets can be very healthy and nutritious if planned appropriately. However, they can be lacking in certain nutrients while the absorption of others might be subpar. Therefore, some careful planning is required to make sure no nutritional deficiencies are present.



#### Vitamin B12

Vitamin B12 is crucial for normal brain and nervous system functioning. Animal foods such as meat, fish, eggs and dairy are the main sources of B12 while trace amounts are found in spirulina. Plant-based milks and nutritional yeast are sometimes fortified with vitamin B12 but this is rarely enough to meet requirements so a daily supplement is required to prevent deficiency.

#### Iron

Iron is needed for blood production and immune function. Deficiency can cause anaemia. Haem iron is the most absorbable form of iron and is found in foods such as red meat and liver. Non-haem iron is less absorbable and is found in plant based sources including green leafy vegetables, nuts and legumes. 87% of people participating in Veganuary were female which is important to note because females are particularly at risk for anaemia due to monthly blood loss from menstruation. Soaking or cooking nuts and seeds can increase iron availability. Adding a source of vitamin C, such as fresh peppers or citrus fruits, can also increase absorption.

#### Calcium

Calcium is needed for the development of strong bones. Lack of calcium can contribute to brittle bones and increased risk of osteoporosis. Mainly sourced from dairy, vegan sources include fortified plant-based drinks, cereals and breads as well as tofu, sesame seeds, almonds, dried fruit and kale. Contrary to popular belief, spinach is not a good source of calcium as oxalates in spinach bind to calcium, limiting its absorption. Spinach is great, just don't count on it for your calcium needs. Many pant based milks such as almond and oat milk are fortified with calcium so be sure to check this on the carton before buying it!



#### Zinc

Zinc is found in red meat and seafood and plays roles in testosterone production and immune function. Phytates found in plant foods limit zinc absorption, so it's important to include lots of rich sources of zinc including fermented soya like tempeh and miso, soaked and cooked beans, nuts and seeds.

## Do I need to Supplement on a Vegan?

There are some supplements which are essential for a plant based diet and some others which may be beneficial. If you're only following Veganuary for the month, you won't need to worry too much about supplements, except for vitamin D and possibly B12, but if you plan to follow a more plant based diet long term, then it's worthwhile considering other supplements.

#### Vitamin B12

B12 is an essential vitamin which needs to be supplemented by anyone following a plant-based diet as it is predominantly sourced in animal products. A supplement of 500-1000µg is recommended.

### Vitamin D

A vitamin D supplement of 1000IU-3000IU is recommended to everyone in the winter and spring months, regardless of whether they follow an omnivorous or vegan diet. Dietary sources are limited and mainly include animal foods such as oily fish and eggs so this is especially important anyone following a plant based diet.

## 0mega-3

Omega-3 fatty acids such as EPA and DHA are rich in oily fish such as salmon and mackerel. They are also found in lesser amounts in flaxseeds and chia seeds. However, the omega-3 fatty acid is in the form of ALA which needs to be converted to EPA and DHA. This conversion

is quite slow with final amounts of EPA and DHA being quite low. An algae-based omega-3 supplement is a great option for someone following a plant-based diet to make sure they're getting in enough of these essential fatty acids.

#### Creatine

Creatine is one of the most widely researched supplements and has been shown to improve sport's performance, power output and cognitive function. Supplementing with creatine is a great idea for anyone who exercises but is especially great for vegans who typically consume lower amounts from food than meat eaters. Research has shown that vegan and vegetarian diets can reduce muscle creatine stores. Aim for 3-5g of creatine monohydrate once a day, every day.

#### Multivitamin

A broad spectrum multivitamin might be a good idea to consider to help fill any gaps of difficult to source nutrients such as iodine and to meet recommended daily allowances of nutrients with high requirements such as calcium. Remember this isn't a replacement for a varied diet but can act as an insurance policy.

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## **Protein and Protein Combining**

Protein and plant based diets is another area which people have lots of questions about! What about protein from plants? Is the protein from plant sources different from animal protein? Yes, there are differences.

Animal protein sources include meat, fish, eggs and dairy. They are easily digested, absorbed and utilised by the body and supplies all 9 essential amino acids (EAAs). They are essential because our bodies cannot make them so they need to be consumed from food. They are needed for repair, recovery and muscle growth alongside production of enzymes, hormones and antibodies.

Plant based protein sources include beans, nuts, legumes and wheat. They are not as easily digested, absorbed or utilised by the body and

does not supply all 9 EAAs. The exception to this are soya protein and quorn protein which are of a higher protein quantity and quality than other plant based proteins.

While plant based sources are typically of a lower quality than animal sources, it is possible to increase the protein quality of plant based proteins through combining different sources to increase the EAAs in that meal. This is called protein complementation or protein combining and involves combining two plant based proteins, one which is low in a particular EAA and another which is high in that lacking amino acid. This will help you get all the EAAs needed by our bodies.

For example, beans are low in an amino acid methionine so eating them with wholegrains such as brown rice can help make up for this, making the meal more complete. Nuts and seeds are low in lysine, so eating them with legumes such as peas, chickpeas, lentils is beneficial.

The combining does not necessarily have to happen in the same meal but a combination of good protein sources should be included at each meal to optimise muscle protein synthesis. Don't worry, you don't need to go off and learn the EAA composition of plant based protein sourcesincluding a wide variety of sources such as beans, peas, lentils, fermented tofu and nuts in your diet should be enough.

A plant based protein powder may be a good addition to the diet. Opting for a blend of different vegan protein sources, such as hemp, rice and pea protein, will provide a broader spectrum of EAAs.

# Digestion and Plant-Based Diet (FODMAPS)

A common complaint when switching over to a more plant based diet is digestive issues such as bloating and increased wind. This is due to the large increase in fibre in the diet! Don't worry, this will settle as your digestive system gets used to the higher fibre diet.

We recommend gradually increasing fibre to allow your digestive system to get used to the extra fibre. And don't forget, as you eat more fibre you need to drink more water, otherwise constipation can become an issue.



## Our Top Tips!

- 1. Plan in advance and meal prep! There are so many recipes out there which are available for free on the internet. Take some time to read through them, gather any ingredients you need and get cooking!
- 2. Pack some vegan snacks! Chopped up veggies such as carrots and celery make a great snack alongside some hummus. Nut, seed and dried fruit mixes are also a great way to pack in lots of vitamins and minerals.
- 3. Read labels! Some products will advertise that they are vegan while others might not make it so obvious so it's always a good idea to check before you buy.
- 4. Check for fortification. When you're switching to plant based alternative such as from cow's milk to almond milk, you'll be missing out on certain nutrients such as calcium. Choose a brand which is fortified with calcium and other vitamins such as vitamin D and B12.
- 5. Take it at whatever pace you're happiest with. An all or nothing approach rarely gets anyone far so don't rush or put yourself under too much pressure. How about trying meat free Monday or promising to have one vegan meal a day to get started?

If you want to chat further about any of the above, please don't hesitate to get in touch - We'll be more than happy to offer our help and advice!



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