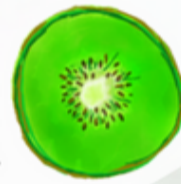




THE VEGAN HIGH FIVE

FIVE SIMPLE STEPS FOR GOOD HEALTH
ON A VEGAN DIET

greenstuff nutrition
Dietetics done differently.



Written by

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INTRODUCTION

A warm welcome!

There are a number of reasons to go vegan or follow a plant-based diet. By going vegan, you reduce animal (and human) suffering and greatly reduce your environmental footprint. If done properly a vegan diet can be exceptionally healthy - reducing your risk of many chronic diseases and some cancers.

If you're a vegan purely for ethics you might not actually care all that much about health and nutrition - but to have the greatest impact possible, it is likely you hope others will go vegan too. Good health is good advocacy. Promoting veganism as a healthy, sustainable and easy diet can help others feel confident about making the switch.

Perhaps you're not 100% vegan or plant-based, but have been wanting to give it a go. If you're finding it all too confusing but you're wanting to ensure you hit the mark nutritionally - without having to sift through a heavy nutrition text book, then this is the ebook for you. The five simple steps outlined in the following pages will ensure you get all the nutrients you need to thrive on a plant-based diet.





Serve size: 1 Tablespoon

FLAX, CHIA OR HEMP

There are three Omega-3 fatty acids vegans should be aware of: ALA, EPA and DHA. ALA is a shorter chain fatty acid that the body cannot make on its own - therefore we must eat it! EPA and DHA are longer chain fatty acids. Our bodies can convert ALA into EPA, and then EPA into DHA. However, conversion rates can differ and too many Omega-6 fatty acids in the diet can interfere with this conversion (so try not to go crazy on the seed oils and processed foods). Additionally, conversion rates decline as we age, so if you are progressing towards your 'senior years' it may be a good idea to double your dose to two tablespoons per day (and consider a supplement - more on this later). Omega-3s are found in high concentrations in our retinas and brain, and also play a role in our cell membranes, so are important for good long-term health.

Flaxseeds are one of the most concentrated sources of ALA a person can eat. But if the flaxseeds aren't ground, we won't digest them properly - so grind your seeds in a coffee grinder or blender and then ideally store them in the fridge/freezer if you're not planning on getting through them quickly. One tablespoon of flax meal contains ~1.6 g of ALA. Flaxseeds are also super high in lignans, which are thought to have anti-cancer properties. Flax is also fantastic for heart health and lowering cholesterol.

Chia and hemp seeds are also great options for ALA - one tablespoon of chia contains ~1.8 g and hemp provides a little less at ~0.9 g. Aiming for 1.6 g per day if you're female or 2.6 g per day if you're male is good practice for plant-based eaters.



EMMA'S TOP 5 WAYS TO INCLUDE FLAX MEAL, CHIA OR HEMP IN THE DIET:

- Sprinkle on top of oats or your breakfast cereal of choice
- Add to smoothies or nice-cream (fruit based ice cream alternative)
- Chia pudding cups
- Add to baking in place of egg
- Add to home-made nut butters and spreads



Serve size: 1 cup legumes, 170 g tofu/tempeh

LEGUMES OR SOY

Legumes have been used widely throughout the world for thousands of years. There are thousands of different species of legume plants, but commonly eaten ones include options like lentils, black beans, chickpeas and soy products. They have been staple foods for many civilisations, yet today their nutritional value and health benefits are greatly under appreciated! If you're worried about protein on a vegan diet - include this food group!

A quick side note on protein: Protein is composed of amino acids (you can think of these as the building blocks that make up the whole). For humans, there are 20 amino acids to be aware of, nine of these are considered essential - meaning we must eat them. All amino acids originate from PLANTS. We either eat the plants or eat the animals who ate them. While plants and animal-sourced proteins both contain all 20 amino acids, the essential amino acids occur in varying amounts, which is behind the misconception that meat is superior. Consuming a couple of serves of legumes/soy per day, along with a balanced diet, will ensure you get all the protein (and individual amino acids) you need.

While legumes are low in calories they are high in fibre and a great source of protein and complex carbohydrates - meaning they are slowly digested and give a feeling of satiety, which can assist with weight management. Their iron content helps transport oxygen throughout the body which assists in energy production and metabolism and the fibre content is not only great for gut health, but can help lower your cholesterol. Regular intake of legumes has been linked to decreased risk of developing heart disease, diabetes and some cancers.



EMMA'S TOP 5 WAYS TO INCLUDE LEGUMES OR TOFU IN THE DIET

- Try a tofu scramble instead of egg
- Make a homemade hummus from chickpeas
- Add some edamame to salads
- Use marinated tofu or tempeh in stir fries or burgers
- Add Lentils, beans or split peas to soups, stews, daals and curries



Serve size: 1 medium sized fruit, 2 small sized fruits, 1 cup berries, 30 g dried

FRUIT

Fruit is sweet, colourful and delicious. Often avoided by people because of the sugar content, fruit is not something that should be feared - in fact it should be enjoyed multiple times per day! The sugar in whole fruit (please note I didn't say juice!) is not the same as the processed sugars found in junk products. The sugars in fruit come pre-packaged with fibre, water, antioxidants, vitamins and minerals, and can actually IMPROVE your insulin sensitivity. Berries in particular, are tiny nutrition powerhouses, loaded with antioxidants and should be enjoyed every day for their healthful benefits.

What about diabetics? A 2017 epidemiological study that tracked half a million people for 7 years actually found that higher fresh fruit consumption was associated with a significantly lower risk of developing diabetes, and for those that already had diabetes, lower risks of death and development of major vascular complications¹.



EMMA'S TOP 5 WAYS TO INCLUDE FRUITS IN THE DIET

- Add some berries to the top of cereals
- Blend frozen banana/mango with other frozen fruits to make nice-cream
- Add freshly made applesauce to baking in place of oil
- Just as is, as a quick and healthy snack!
- Add to smoothies with your favourite leafy green for a nutrient-packed drink



Quick Creamy Green Smoothie

- 2 gold kiwi fruit
- 1 frozen banana
- 1 cup baby spinach or kale
- 1 tbsp flax meal
- 1 cup calcium fortified soy milk

1. Blend all ingredients in a high powered blender until desired consistency is reached. Serve straight away and enjoy!



Serve size: 1 slice of bread, 1/2 cup cooked grain

WHOLE GRAINS

While it is true that REFINED grain products have the potential to be damaging to your health, the exact opposite is true when it comes to whole grains. Whole grains are derived from various grass seeds and include oats, barley, quinoa, rye, millet and buckwheat - just to name a few. Whole grains are filled with valuable phytonutrients, healthy starches and fibre as well as vitamin E, B vitamins (essential for energy metabolism) and minerals like iron and magnesium. Regular consumption of whole grains has been associated with lower rates of chronic diseases, such as heart disease, type 2 diabetes, digestive system cancers and hormone related cancers. People who eat whole grains regularly also have lower risk of obesity and lower cholesterol levels.

Eating whole grains also keeps our gut bugs happy, which in turn keeps us happy. Regular consumption can have beneficial impacts on the microbial profile of our guts, which can minimise gut inflammation and can keep our immune system strong².

Keep your grains 'whole' whenever you can. Refined grains are milled, a process which removes the bran and the germ. This process results in a loss of many vitamins and minerals and much of the grain's protein and fibre.



EMMA'S TOP 5 WAYS TO INCLUDE WHOLE GRAINS IN THE DIET

- Add some brown or black rice, quinoa, freekah or millet as an accompaniment to stir-fries, curries or stews
- Choose whole grains for breakfast - oats, quinoa/quinoa flakes or buckwheat
- Make your own pizza bases using whole grain flours
- Add a grain to salad to transform it into a satiating meal
- When choosing bread use the 5:1 carbohydrate to fibre ratio:
 - ❖ Check the label and divide total carbohydrates (per 100 g) by fibre (per 100 g). This division will give you a number - If the number you end up with is 5 or less it is a good choice!



Serve size: 1/2 cup cooked vegetables, 1 cup raw vegetables

VEGETABLES

Vegetables can be broken up into smaller sub-categories, each category providing their own unique range of nutrients. There are various ways of classifying vegetables using both botanical and culinary definitions. But whichever way you slice it - we aren't eating enough. Currently only about 6% of Australians meet the recommended daily intake of vegetables³. This is not a stat that should be taken lightly. WHO estimates 6.7 million deaths worldwide were attributed to inadequate fruit and vegetable consumption in 2010 alone⁴.

Vegetables are filled with vitamins, minerals, antioxidants, fibre, starches, proteins and essential fatty acids. They basically give you the best nutritional bang for your buck. It is important to eat a variety of different colours and types of vegetables, but ensure you get at least one serve of dark green leafy vegetables per day. Leafy greens are the nutritional kings and queens of the food world; jam-packed with antioxidants and an array of vitamins and minerals such as vitamins A, C, E and K, folate, iron, calcium, potassium and

magnesium. The good thing about leafy greens is that they can be added to almost any dish - from smoothies, to curries, to dips/spreads - even ice cream. Just like other vegetables, try and keep your greens on rotation in order to get a range of nutrients.



EMMA'S TOP 5 WAYS TO INCLUDE VEGETABLES IN THE DIET

- Try to add at least 4 different vegetables to each main meal you make
- Keep a snack station in the fridge - keep pre chopped carrot sticks, celery sticks, green beans, cherry tomatoes and capsicum slices ready to roll
- Fussy eaters in the family? Add finely grated carrot and zucchini to stews - by the time it cooks down they won't even know its there
- Try adding sweet potato, pumpkin or zucchini to baked desserts
- Add leafy greens to smoothies, curries or dips





The Extra Bits and Pieces

SUPPLEMENTS

And finally, just a few more things to be aware of:

- Low levels of **Vitamin B12** can cause anaemia, and in extreme cases irreversible nerve damage. Do not muck around with this vitamin - ensure you are getting a reliable source and the best way to do that on a strictly plant-based diet is with a supplement.
- While a person can get enough **calcium** on a vegan diet without the use of fortified products, realistically it is unlikely most Australians would do so. Low oxalate leafy greens, are great as are figs, almonds, chia seeds etc but an easy way to ensure you're ticking the boxes is to include calcium fortified plant-milks or calcium set tofu. Not all milks and tofu are calcium fortified though - so read those labels!

- **Vitamin D** (which is actually a hormone) is certainly a hot topic in the science world of late. Smaller studies have linked it to a number of benefits - from improved immune function to lower cancer risk, whereas the larger scale randomised controlled trials haven't been quite so optimistic in their findings. It appears that if you are vitamin D deficient, then a supplement will improve health outcomes (which is pretty logical), whereas if you already have sufficient levels... additional supplementation might not do all that much - so not everyone will need to supplement. Our main source of vitamin D is actually from sun exposure rather than food. Very few vegan foods contain vitamin D (apart from UV mushrooms), so if you don't get much sun or you have darker skin, it may pay to take a supplement. Talk to a health professional for specific advice if you're unsure.

- While we've already covered **Omega-3 fatty** acids let's quickly recap and expand: The body can manufacture long chain omega-3 fatty acids from ALA, however conversion rates vary and optimal conditions for conversion remain unclear. We don't get long chain omega-3s from plant-based food (apart from algae). While vegans tend to have lower rates of long chain fatty acids than omnivores do, it remains unclear whether this is of concern. Research into the overall benefits of omega-3s is still conflicting and while some studies show benefits to vegetarians who supplemented with DHA, until more is known it may be prudent to only supplement with small amounts of DHA and EPA. 200-300 mg of DHA and EPA combined, every few days, is a common recommendation by some plant-based health practitioners.

- Lastly, **Iodine** is often overlooked, but deficiency rates in Australia are a concern. Iodine is very important for thyroid function, brain development, growth and energy metabolism. If you're pregnant or planning on becoming so - take a supplement. For all other plant-based eaters it will depend on your diet as to whether you need to supplement, but it's definitely one to have on your radar. Iodised salts, fortified breads and seaweeds such as nori and dulse are good sources - but be careful with seaweeds as some have far too much (kelp and Hiziki for example) and can result in iodine toxicity. Talk to a health practitioner for more specific advice.

Please note that the vegan high five is a generalised framework for healthy eating, it may not be 'spot on' advice for your exact needs (nutrition requirements vary depending on age, sex, activity level, health history etc). This book is not intended to take the place of personalised medical care or treatment. For individualised nutrition advice it is recommended you see a plant-based health practitioner.



ABOUT THE AUTHOR



Emma is an Accredited Practising Dietitian and Nutritionist based in sunny Queensland Australia. Initially working within the hospital system, and with previous experience as a research assistant, she now runs greenstuff nutrition and is also co-founder of the advocacy platform and charity [**The Lentil Intervention**](#).

Emma is a Fellow of the Australasian Society of Lifestyle Medicine, holds a certificate in Plant-Based Nutrition through eCornell University and is a qualified yoga teacher (200 hrs). She has a special interest in plant-based nutrition having followed a vegan diet for well over a decade and is passionate about the planetary health benefits of eating this way. She's currently keeping herself busy undertaking more studies in climate change adaptation and sustainable living, in addition to her dietetic work.

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