

# Beginner's Guide to a Plant Based Diet



Learn about the  
different types of  
plant based diets

What are the  
benefits of  
following a plant  
based diet?

Making sure you  
get all the  
nutrients your  
body needs

# Different types of plant-based diets

LACTO-OVO VEGETARIAN	OVO-VEGETARIAN	LACTO-VEGETARIAN	VEGAN
 	 	 	 
 Dairy  Eggs  Meat  Poultry  Seafood	 Eggs  Meat  Poultry  Seafood	 Dairy  Meat  Poultry  Seafood	 Any animal product including:  Dairy  Eggs  Meat  Poultry  Seafood  Honey

Well planned vegetarian and vegan diets can be both nutritious and healthy. When you decide to follow a vegetarian or vegan diet and plan your meals well, you will often eat more fruits, vegetables and enjoy meals that are higher in fibre and lower in saturated fat.

To be plant-based doesn't necessarily mean that you are vegan, plant-based simply means you try and eat more whole foods, to base your diet around fruits and vegetables but you may also eat small amounts of meat or fish. Variations of plant-based diets include pescatarians, that eat a plant-based diet that includes fish, and flexitarians that predominantly eat a vegetarian diet but may occasionally eat meat/poultry. You may decide to consume a plant-based diet, vegetarian or vegan diet for a number of reasons including concern for animal welfare, environmental concerns, taste preferences or for health reasons. It's true that individuals that follow a well-planned vegetarian or vegan diet are at a lower risk of several health conditions such as obesity, hypertension, heart disease and type two diabetes.

## What are some of the benefits of following a plant based diet?

### HEART HEALTH



Those who consume a vegetarian or vegan diet often have lower cholesterol levels and lower levels of heart disease. The reason for this is often because vegetarian diets are lower in saturated fat. Some studies even showed that reducing 3% of energy from animal protein and replacing that with plant protein resulted in a reduced risk of all-cause mortality.

Overall, individuals that eat a vegetarian or vegan diet tend to have lower blood pressure than non-vegetarians. Diets high in animal products are often higher in saturated fat and sodium and therefore including more fruits and vegetables in your diet may help to reduce blood pressure.

### BLOOD PRESSURE



# DIABETES



It is well known that a low-fat diet, high in complex carbohydrates and fibre (which are found in abundance in well planned plant-based diets) makes a very good nutritional choice for those with diabetes. Diets based on vegetables, fruit and whole grains that are also low in fat and sugar can help to stabilise blood sugar levels for longer periods. Since those with diabetes are often at a higher risk for developing heart disease a vegetarian diet is also beneficial to reduce this risk factor.

# THE ENVIRONMENT



Dietary choices can have a significant impact on the environment as well as on our health. Animal agriculture is a major driver of climate change, as well as water pollution, ocean destruction, land degeneration and deforestation. The average UK 'meat eater' uses over 4 times as much land and water as an individual who is plant-based as well as releasing 3 times the CO<sub>2</sub>. Low carbohydrate diets are particularly high in animal products and therefore have the worst environmental impact. They require roughly five times the amount of land, double the amount of water and produce four times as much CO<sub>2</sub>.

(Calculations based 2100 kcals , not including food waste. Using impact data from Reducing food's environmental impacts through producers and consumers J. Poore , T. Nemecek Science, June 2018)

# Making sure you get all the right nutrients



## PROTEIN

Our bodies need protein to help to build and maintain all types of body tissue such as muscle. Protein contains amino acids which are the building blocks used for muscle growth. Most people eating a western diet consume protein in abundance, however, we don't necessarily need that much.

Current clinical guidance states that **the average individual needs 0.75g of protein per day, times by your weight in KG**. So, for example, if you weigh eleven stone you need roughly 51g of protein per day. There are no standardised guidelines for protein requirements for if you weight train or not. The current recommended daily allowance remains at 0.75 regardless of your current exercise regime. According to research, there is a suggestion that consuming between 1.2g protein per kg body weight and 1.6g protein per kg of body weight may help you to gain muscle more easily and also help you to lose weight if you are a healthy individual. If you do suffer from chronic illness or certain diseases then you should consult your doctor before increasing your protein intake significantly.

Plant-based sources of protein are generally high in fibre and low in fat. Fibre is important for our overall health as it is an essential nutrient for the normal functioning of the gut, it also reduces the risk of some diseases such as diabetes, bowel cancer and cardiovascular diseases. Increasing foods such as beans and pulses will help you to increase the fibre in your diet as well as protein.

Here are some sources of protein for both vegetarian and vegan diets:

VEGETARIAN SOURCES OF PROTEIN	VEGAN SOURCES OF PROTEIN		
 Eggs  Soya & soya products  Beans, lentils & chickpeas  Microprotein (such as Quorn) /Tempeh/ Tofu	 Dairy (milk/cheese/yogurt)  Nuts & seeds  Grains such as wheat, maize & rice	 Nuts & seeds  Soya & soya products  Grains such as wheat, maize & rice	 Beans, lentils & chickpeas  Tempeh/ Tofu

## CALCIUM



Calcium is needed by our bodies to help to keep our bones healthy but it is also crucial in regulating muscle contractions (including your heartbeat) and making sure that your blood clots normally. Current government dietary recommendations state that **healthy adults need 700mg calcium per day** (if you are breastfeeding your requirement changes and you will need to check with your care provider). To provide an example, an average 30g portion of cheddar cheese would provide you with approximately 200mg of calcium and a 200ml glass of milk would provide around 240mg. Although calcium is easily acquired through consuming dairy, there are other foods that contain calcium.

Here are some sources of calcium:

FOOD	SERVING SIZE	CALCIUM MG PER SERVING
Fortified plant-based alternatives to milk	A glass (200ml)	240
Fortified plain soya alternative to yogurt	An individual pot (150g)	180
Tofu - hard/ firm	Average (100g)	105
Watercress	A small cereal bowl (80g)	136
Pak Choi, steamed	1/5th of a head (80g)	85
Okra, raw	16 medium (80g)	128
Kale, boiled	4 heaped tbsp (80g)	120
Dried figs/ apricots	2-4 (30g)	60-70
Nuts	Handful (30g)	33-72
Tahini paste	1 heaped tbsp (19g)	129
Sesame seeds	1 tbsp (10g)	67
Falafel	2 (60g)	51
Beans	4 tbsp (100g)	43-83

## NON-DAIRY SOURCES OF CALCIUM



**CALCIUM FORTIFIED FOODS (E.G PLANT-BASED MILKS, YOGURTS AND PUDDINGS)**



**BROWN/ WHITE BREAD**



**TOFU**



**SESAME SEEDS**



**NUTS**



**SOME DRIED FRUIT (E.G APRICOTS AND FIGS)**



**GREEN LEAFY VEGETABLES (E.G KALE, PAK CHOI) [NOTE THAT SPINACH DOES CONTAIN CALCIUM, HOWEVER THIS IS NOT A GOOD SOURCE AS THE CALCIUM IS BOUND TO A COMPOUND CALLED OXALATE WHICH MAKES IT DIFFICULT TO ABSORB].**



## OMEGA 3 FATTY ACIDS

Omega fatty acids are beneficial to health. They have been found to reduce the risk of heart disease, reduce blood pressure and inflammation. There are two types of omega-3's, long versions (EPA/DHA) which are found in oily fish and short versions (ALA) that come from vegetable oils. Currently, **it is recommended to have 450mg of EPA/DHA** per daily adult dose to achieve and maintain optimum health. EPA and DHA are the main sources of Omega fatty acids, however, these largely come from fish sources. There is a plant variation of omega fatty acids and this is called ALA. ALA (plant-based omega) can be converted to EPA but unfortunately, it cannot be converted to DHA which means that individuals that follow a plant-based diet may be lacking omega 3. Both EPA/DHA are needed to achieve optimal health and therefore it is recommended that vegetarians and vegans take a supplement with both EPA/DHA.



## IRON

Iron is a mineral that is especially important in making haemoglobin (a protein contained in red blood cells that transports oxygen around the body) and supporting a healthy immune system. Red meat is particularly high in iron and easily absorbed, however for individuals that follow a plant-based diet, it is important to be aware of other sources. Current guidelines recommend that a healthy adult **male below the age of 50 requires approximately 8.7mg of iron daily**, whereas **females require around 14.8mg**. This number drops to **8.7mg for both males and females after the age of 50**.

Although iron isn't as easily absorbed from plant-based sources food preparation can enhance absorption (for example using sprouted seeds and grains or soaking nuts and seeds).

Here are some sources:

## PLANT BASED SOURCES OF IRON



BAKED BEANS  
(IN TOMATO SAUCE)



KIDNEY BEANS  
(CANNED)



BUTTER BEANS  
(CANNED)



TOFU  
(STEAMED)



CHICKPEAS  
(BOILED)



FIGS, APRICOTS, DATES  
(DRIED)



ALMONDS,  
BRAZIL NUTS,  
PEANUT BUTTER  
(SMOOTH),  
HAZELNUTS



SESAME SEEDS,  
SUNFLOWER SEEDS



BROCCOLI  
(BOILED)



SPINACH  
(BOILED)  
SPINACH  
(BOILED)



# B<sup>12</sup>

## VITAMIN B12

B12 is an important vitamin that helps to keep the nervous system functioning normally. Whilst it can take some time to deplete stores of B12 it can also take a while to restore them so **it's best to try to include fortified foods containing B12 in your diet or to take a supplement.**

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# Se

## SELENIUM

Most of the selenium in our diets comes from meat and fish. For vegetarians and vegans **it's important to include some nuts into your diet**, especially Brazil nuts. Whilst we only need a very small amount, selenium helps your body to make special enzymes that play a role in preventing cell damage as well as promoting a healthy immune system.

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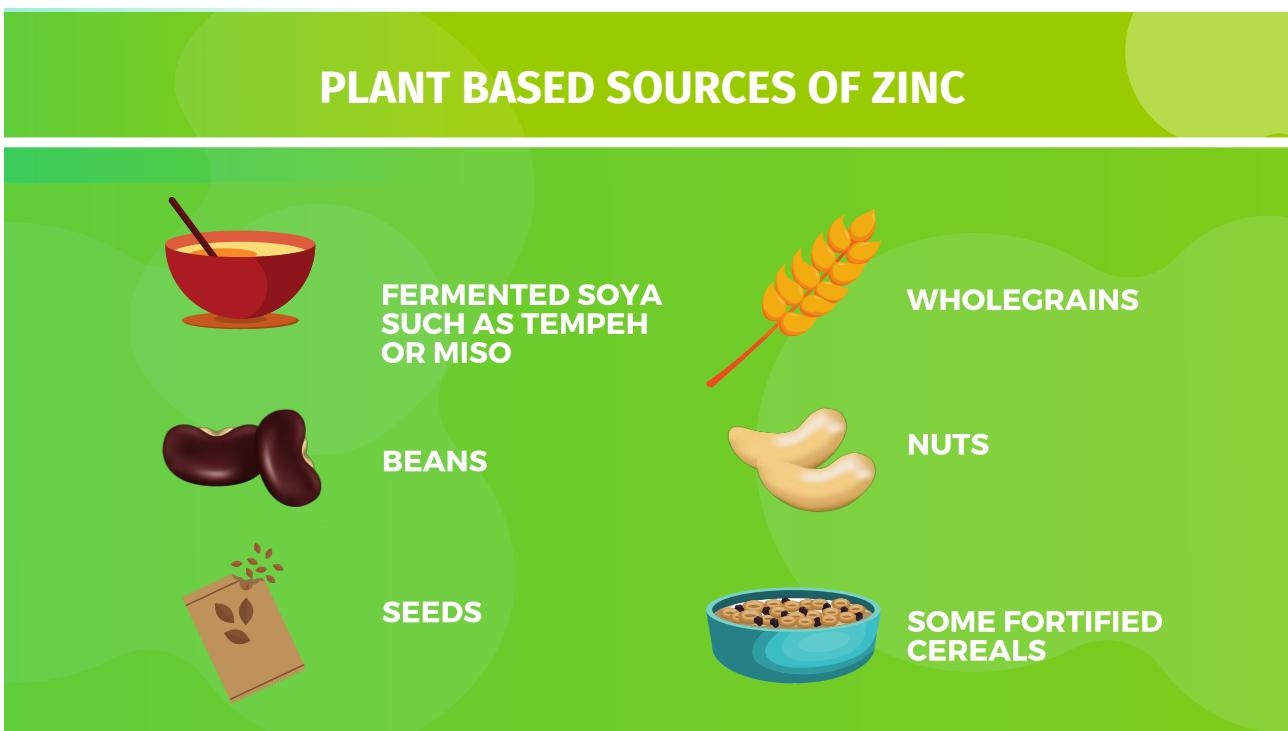


# Zn

## ZINC

Zinc helps with making new cells, processing the foods that you eat and also healing wounds. Most people that are plant-based take in higher amounts of phytates (these are found in plant foods such as wholegrains and beans) which reduce your ability to absorb zinc. This means **it's important to include plenty of good sources of zinc in your diet.**

Good sources of zinc include:



## IODINE

For those that are vegan it is important to include small amounts of iodised salt or sea vegetables in your diet. Iodine helps to make thyroid hormones that keep cells healthy and also keep metabolism working at a healthy rate. **Healthy adults need to be consuming around 150mcg per day.** Although sea vegetables are a good sources of iodine it's important to monitor how much you're eating as too much iodine can be as harmful as too little.

Get more information on Plant based diets by viewing the [\*\*The Plant-Based Eatwell Guide\*\*](#)

### **Remember:**

- Try to eat at least 5 portions of fruit and vegetables per day. Eating more has additional health benefits. One portion is 80g or a palm-sized amount. One portion of dried fruit is about 30g and a 150ml glass of smoothie counts as a maximum of one portion per day.
- Include plenty of beans, peas and lentils as a good quality source of plant protein and fibre. If you don't eat fish then try to include 2tsp of omega 3 fats.
- You should try to include a small amount of unsaturated fats and oils within your diet. Extra virgin olive oil for salads and cold pressed rapeseed oil for cooking are better options.
- When choosing carbohydrates try to choose varieties that are less processed such as potatoes, rice, wholemeal pasta and bread.

### **Sources Referenced:**

Plant Based Health Professionals UK

British Dietetic Association (BDA)

NHS UK

For more on diet visit [www.pamlife.co.uk](http://www.pamlife.co.uk)

