

The Plant-Based Eatwell Guide



PLANT-BASED
Health Professionals UK

Helping you eat a healthy, balanced plant-based diet



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Get started now

This booklet is based on Public Health England's Eatwell Guide (2016). The aim is to help you adopt a healthy plant-based diet, also called a whole food plant-based diet. It is composed of minimally processed foods, but high in fruits, vegetables, wholegrains, beans, nuts and seeds.

This guide is broadly suitable for all age groups over the age of 1 year, but will require some adaptation for children and pregnancy. Some people may need specialist dietary support for specific medical conditions.

Eating well and having a healthy lifestyle can help you feel your best and will make a big difference to your long-term health. So why not make a change today?

The guide shows the proportions in which foods from different food groups are needed to achieve a balanced and healthy diet. The proportions shown represent the recommended food consumption over the period of a day or even a week, not necessarily each meal time.

Is the Plant-Based Eatwell Guide right for me?

The Plant-Based Eatwell Guide applies to most people regardless of weight, dietary restrictions/preferences or ethnic origin. Anyone with special dietary or medical requirements should consult a registered dietitian on how to adapt the Eatwell Guide to meet their individual needs.

How can the Plant-Based Eatwell Guide help?

- Eat at least 5 portions of a variety of fruits and vegetables a day but aim for more, as eating up to 10 portions a day has additional benefits for health.
- Base meals around potatoes, bread, rice, pasta or other starchy carbohydrates. Choose wholegrain over refined versions.
- Include some fortified dairy alternatives such as soya drinks and yoghurts; choose unsweetened options.
- All plant foods contain some protein. Higher amounts are found in beans, pulses, lentils, nuts, seeds, and tofu.
- Choose unsaturated oils and spreads and eat in **small** amounts. Extra virgin olive oil for salads and cold-pressed rapeseed oil for cooking are better options.
- Drink 6-8 cups/glasses of fluid a day, mainly water but can include plant-based milks, tea and coffee.
- Make sure you get an adequate amount of vitamin **B12**. A supplement is the safest, most reliable and affordable way of ensuring this.

Processed and packaged foods are usually high in fat, salt or sugar. Have these less often, if at all, and only in small amounts.

When should I use the Plant-Based Eatwell Guide?

Using this guide can help you make healthier choices whenever you're:

- deciding what to eat
- cooking at home
- out shopping for groceries
- eating out in a restaurant, cafe or canteen
- choosing food on the go

Aim to fill your trolley with a healthy balance of different types of food.

How does it work?

The Eatwell Guide divides the foods and drinks we consume into five main groups. Try to choose a variety of different foods from each of the groups to help you get the wide range of nutrients your body needs to stay healthy.

It is important to get some fat in the diet but this is best obtained from whole plant foods such as avocados, nuts, seeds and olives. Although most vegetable oils and spreads contain mainly unsaturated fats, which are healthier than butter and animal fat, these should be consumed in small amounts as they are refined and processed. All oils are high in calories and can contribute to weight gain.

Many of the meals we eat, such as casseroles, pasta dishes and sandwiches, are a combination of the food groups. For these sorts of food, consider the main ingredients and how these fit with the sections on the guide. For example, if you're having a 'cottage' pie: the potato fits into the yellow segment; the soya milk in the mashed potato fits into the blue segment, the spread in the mashed potato fits into the purple segment, the beans would fall into the pink segment; the onion, carrots and peas would fit into the green segment.

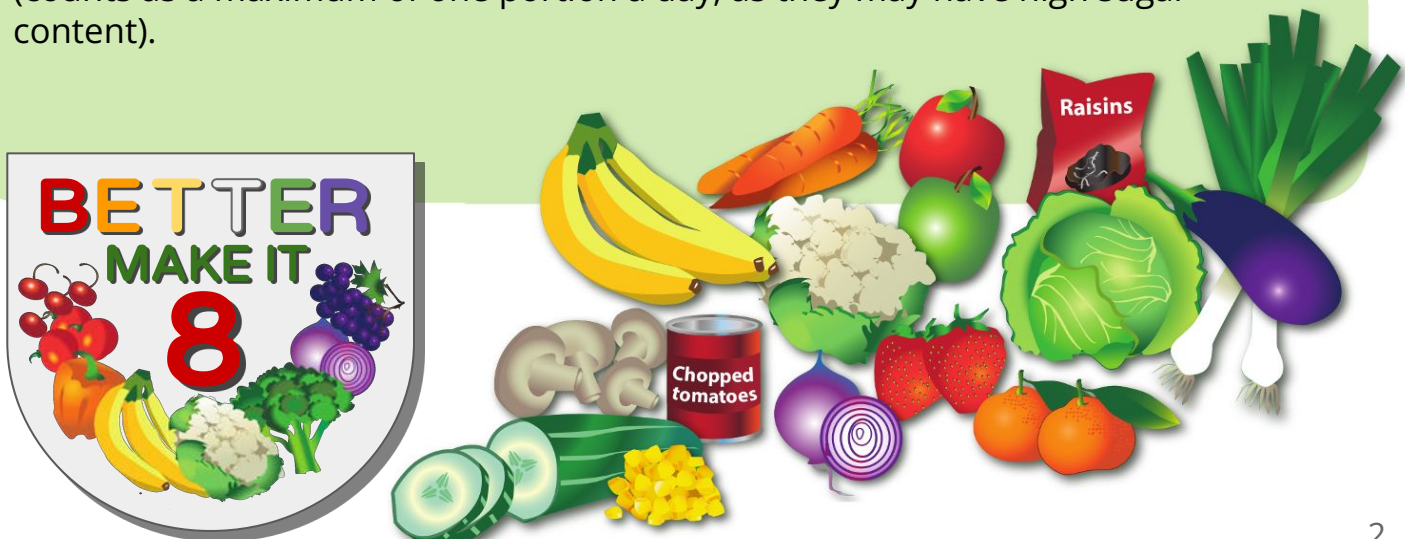
Let's take a closer look at each of the food groups...

A closer look at

Fruit and vegetables

We all know that we should be eating more fruits and vegetables, but most of us still don't consume enough. Fruit and vegetables should make up just over a third of the food we eat each day.

Aim to eat at least five portions of a variety of fruit and vegetables each day, although we know that eating up to 10 portions a day has additional health benefits. Choose from fresh, frozen, canned, or dried. A portion is 80g or a palm-sized amount: 1 apple, banana, pear, orange or other similar-size fruit, 3 heaped tablespoons of vegetables, a dessert bowl of salad, 30g of dried fruit (counts as a maximum of one portion a day) or a 150ml glass of smoothie (counts as a maximum of one portion a day, as they may have high sugar content).



A closer look at

Potatoes, bread, rice, pasta and other starchy carbohydrates

Starchy food is a really important part of a healthy diet and should make up just over a third of the food we eat. Choose high-fibre, wholegrain varieties by purchasing whole wheat pasta, brown rice, quinoa, bulgur, or simply leaving the skins on potatoes.

Base your meals around starchy carbohydrate foods. For example:

- start the day with a wholegrain breakfast cereal, choosing one low in salt and sugar. Whole oats are a good breakfast choice.
- have a sandwich with wholegrain bread or a salad with brown rice for lunch
- round off the day with potatoes, whole wheat pasta or brown rice as a base for your evening meal

Some people consider starchy foods as 'fattening', however, gram for gram they contain similar calories to protein, and less than half the calories of fat.

Why choose wholegrain?

Wholegrain foods contains more fibre, vitamins and minerals than white or refined starchy food. We digest wholegrains more slowly so they help us feel full for longer and help to regulate blood sugar levels better.

Wholegrain foods include: wholemeal and wholegrain bread, pitta and chapati, whole wheat pasta, brown rice, wholegrain breakfast cereals, and whole oats.



A closer look at

Oils and fats

Although some fat in the diet is essential to absorb nutrients, generally we are consuming too much saturated fat. Unsaturated fats are healthier, and are predominantly from plant sources.

Choose fats from whole foods like flaxseeds, nuts, and avocados as opposed to refined, liquid oils where possible. Avoid coconut oil and palm oil they are high in saturated fat.

Remember that all types of fat and oils are high in energy/calories and should be limited in the diet.



A closer look at

Vitamin B12 supplements and B12 enriched foods

Vitamin B12 is produced by microorganisms in the soil and the gut and therefore plant foods are not a reliable source. Taking a **supplement is recommended** as a better option to provide the necessary amount. Some foods like yeast extract and nutritional yeast, meat substitutes, plant milks may be enriched, but may not provide an adequate regular amount.

More about vitamin B12 in the section about supplements - page 8.



A closer look at

Beans, pulses, nuts, seeds and plant protein

Beans, peas, chickpeas, and lentils (which are all types of legumes) are healthy choices because they are naturally low in fat, and high in fibre, protein, vitamins and minerals. Other vegetable-based sources of protein include tofu, bean curd and mycoprotein (Quorn); all of which are widely available in most retailers.

Aim to eat a portion of unsalted nuts per day (30g). Aim for at least two teaspoons (2 x 4g) of ground flaxseed or chia seeds each day, as a good source of omega-3 fats.



A closer look at

Plant-based dairy alternatives

Plant-based milks and yoghurts are a good alternative to dairy foods and can be a good source of vitamins and minerals, such as calcium, as they are often fortified. Make sure these alternatives are not high in added sugar.

Healthy plant-based milks include soya, oat, almond and pea. Choose unsweetened, calcium and vitamin D fortified versions.

There is an increasing variety of plant-based cheeses and spreads. but these are highly processed foods, often high in fat and salt, so should only be eaten as a occasionally, if at all.



A closer look at

Herbs, spices, sauces and fermented foods

Herbs and spices provide a rich range of antioxidants and polyphenols that can benefit health. These can be added to meals to provide flavour as well as nutrition.

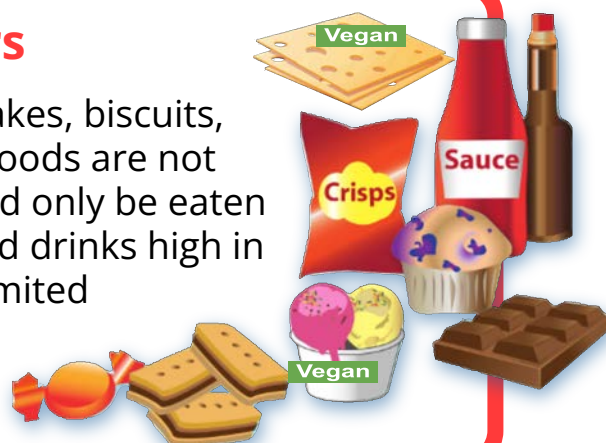
Ferments, like sauerkraut or kimchi can be rich in B vitamins and benefit the gut microbiome, but some can be high in salt.

Sauces provide flavour but they can also be high in added sugar and salt. Fresh and dried herbs and spices can be used liberally as they are full of healthful properties.



Foods high in fat, salt and sugars

This includes products such as chocolate, cakes, biscuits, full sugar soft drinks and ice-cream. These foods are not needed in the diet and so, if included, should only be eaten infrequently and in small amounts. Food and drinks high in fat and sugar contain a lot of calories and limited nutritional value. Check the label and avoid foods which are high in fat, salt and sugar.



Hydration

Aim to drink 6-8 glasses of fluid every day. Water is the best option but plant-based milks, tea, and coffee also count. Fruit juice and store-bought smoothies with high sugar content also count towards your fluid consumption, however they are also a source of free sugars* and should be limited to no more than a combined total of 150ml per day.

Sugary drinks are one of the main contributors to excess sugar consumption amongst children and adults in the UK. Cordials and squashes are high in liquid sugar, so they are best avoided. Aim to switch to water only.

Alcohol is not only high in calories but is a cause of cancer. It should be minimised or ideally avoided.



Water, plant milks and drinks without sugar including tea and coffee all count

Limit fruit juice and/or smoothies to a total of 150ml a day.

Healthy Snacks

Snack from the categories of the Eatwell guide. Aim to have whole food snacks that are minimally processed. These include fruit, nuts and seeds and hummus on toast or vegetable sticks.



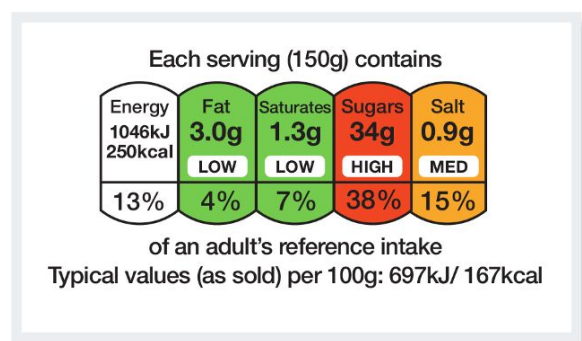
Food labelling

Lots of pre-packaged foods have food labels providing the nutrition information per serving. They also refer to the Dietary Reference Intake (DRI), which tells you how much of each nutrient should be included in the daily diet. The percentage refers to the contribution that the product makes to the reference intake for each nutrient.

Food labels can help you to pick those that are lower in calories, saturated fat, sugar and salt. Where colour coded, traffic light labels are used you can tell at a glance if they are **high**, **medium** or **low** in saturated fat, sugars and salt. For a healthier choice, try to pick products with more greens and ambers and fewer reds.

*Free sugars - Any sugar added to food or drink products by the manufacturer, cook or consumer including those naturally found in maple syrup, agave and unsweetened fruit juice.

Remember that the portion sizes used on the label are suggestions and may not reflect the amount you consume. For example, some foods and drinks commonly consumed as single servings have the nutritional information presented per half pack. To find out more about food labelling you can visit [nhs.uk/live-well/eat-well/how-to-read-food-labels](https://www.nhs.uk/live-well/eat-well/how-to-read-food-labels)



Cutting down on saturated fat

Cutting down on saturated fat can lower blood cholesterol and reduce your risk of heart disease, stroke, type 2 diabetes and dementia. Most people in the UK eat too much saturated fat. The average man should have no more than **30g** whilst the average woman should have no more than **20g** of saturated fat per day. Children should have less saturated fat than adults. Plant-based diets are generally low in saturated fat, as it is predominantly found in animal-derived foods. There are some plant sources of saturated fat, including palm oil, coconut oil and cream, so their consumption should be limited or avoided. To find out more, see www.nhs.uk/live-well/eat-well/eat-less-saturated-fat

Cutting down on sugar

Regularly consuming foods and drinks high in sugar increases your risk of obesity, type 2 diabetes and tooth decay. Ideally, no more than 5% of the calories we consume should come from free sugars*. Currently, children and adults across the UK are consuming 2-3 times this amount.

Age	Recommended maximum free sugars intake	Sugar cubes
4-6 years	Less than 19g/day	5 cubes
7-10 years	Less than 24g/day	6 cubes
11 years + and adults	Less than 30g/day	7 cubes

Many packaged foods and drinks contain surprisingly high amounts of free sugars* including some breakfast cereals, yoghurts and fruit juice drinks. Use the food label to help you choose foods lower in sugar. Swap sugary breakfast cereals for plain cereals such as plain porridge, whole wheat biscuit cereals, shredded wholegrain wheat, or no added sugar muesli. Cereal bars often contain high levels of free sugars* too, so remember to check the label. Swap flavoured or corner-style plant-based yoghurts for low fat, lower sugar versions, adding fresh fruit for variety.

Sugary drinks have no place in a child's daily diet but do account for a surprisingly large proportion of the daily sugar intake of both children and adults. Almost a third of the free sugars consumed by 11-18 year olds comes from soft drinks. You should aim to swap sugary drinks for water, tea, and coffee without sugar. Be sure to check the label for added sugar. For more information, visit:

www.nhs.uk/live-well/eat-well/how-does-sugar-in-our-diet-affect-our-health

Cutting down on sweetness

Artificial sweeteners are added to many processed foods instead of sugar to provide sweetness. Whilst they do reduce the calorie content of these foods, there is concern that they have a negative impact on metabolism, appetite and gut bacteria, leading to a possible increased risk of several chronic diseases, including diabetes, stroke and type 2 diabetes. Ideally, they should be avoided in the diet.

*Free sugars - Any sugar added to food or drink products by the manufacturer, cook or consumer including those naturally found in maple syrup, agave, and unsweetened fruit juice.

Cutting down on salt

Eating too much salt can raise your blood pressure, which increases your risk of developing heart disease, stroke, dementia and kidney failure. Most people in the UK consume too much salt. Adults should eat no more than **6g**, or 1 teaspoon, of salt a day and if you already have high blood pressure you will benefit from lowering your intake further. Children should have even less. But remember we're not just talking about the salt you add to your food, as most salt in the diet comes from processed and packaged foods and meals eaten outside of the home. Salt is found in everyday foods such as bread, breakfast cereal, pasta sauce, and soup. Try replacing salt with pepper, herbs, and spices to add flavour to your favourite dishes. Checking the label and choosing foods that are lower in salt is one of the best ways to cut down. A general rule is that if the amount of sodium in milligrams is more than the calorie content of the food, then that's too much. For more information, visit www.nhs.uk/live-well/eat-well/salt-nutrition.

How much food do I need?

We all need different amounts of energy (or calories) from food to be a healthy weight. How much you need depends on lots of things, including how active you are.

Whenever we eat more calories than our body needs, we put on weight. This is because we store the energy we don't use as fat. Even if we have just small amounts of extra energy each day, we can put on weight over time.

Age	Daily energy requirements	
	Males	Females
	Kcals	Kcals
11 and over	2500	2000

Try to:

- Eat only as much food as you need to feel satisfied. Base your intake on the Plant-Based Eatwell Guide. Stick to eating mainly unprocessed whole plant foods
- If you're eating a good balance of the different food groups, and you're a healthy weight, you're probably eating about the right amount
- If you are trying to lose weight then choose smaller portion sizes of nuts, seeds, starchy vegetables and wholegrains and eat more fruits and non-starchy vegetables.
- If you are trying to gain weight, choose more energy dense foods, such as nuts and dried fruit, and include regular snacks

If you're overweight, then you may need to eat less, improve the balance of your diet and/or get more active. Ask your GP, or another health professional, for advice about losing weight. Do you know if you're a healthy weight? Find out at:

www.nhs.uk/live-well/healthy-weight

Do I need to supplement omega-3 fats on a plant-based diet?

There are three main omega-3 fatty acids. The short chain omega-3 fatty acid, alpha linolenic acid (ALA) and the two long chain omega-3 fatty acids - DHA (docosahexaenoic acid) and EPA (eicosapentaenoic acid). ALA can be found in plants, whereas DHA and EPA is commonly obtained from fish. Fish obtain these fats from algae. The body can convert ALA to DHA/EPA but this ability reduces with age and also varies between individuals. To meet daily requirements of **2-4g** of ALA per day, this would require a tablespoon of chia seeds or ground flaxseeds (linseeds), or two tablespoons of hemp seeds or six walnut halves daily. A reliable source is a microalgae supplement with at least **250mg** dosage of DHA for adults per day. This is particularly advisable during pregnancy and breast-feeding at higher doses.

Do I need vitamin and mineral supplements on a plant-based diet?

A plant-based diet is abundant in many healthy nutrients including potassium, folate, vitamin C, magnesium, and fibre. There are some nutrients that may be less abundant.

Vitamin B12 is needed to make red blood cells and for nerve function. It is produced by bacteria rather than plants or animals. The recommended daily intake for adults is **1.5µg**. We recommend people following a plant-based diet to take a B12 supplement. The ability to absorb B12 varies, particularly with age, so taking a **25-100µg daily** or **2000µg weekly** supplement is suggested. Higher doses may be needed if you are over the age of 65 years. If you choose to obtain B12 from enriched foods, like yeast extract or nutritional yeast, then a serving will need to be eaten at least twice a day.

Iodine is a trace element that is an essential component of the thyroid hormones. The recommended amount for adults is **140µg per day**. Iodine content from plants is generally low. However seaweed is a good source of iodine, and one and a half to two sheets of nori might provide the recommended daily intake. Some types of seaweed such as hijiki can be contaminated or contain excessive amounts of iodine such as kelp. Iodised salt is an option but increased salt intake is not recommended. Some plant milks are now being fortified with iodine. A supplement may be a sensible option when consuming a plant-based diet.

Vitamin D is synthesised when our skin is exposed to sunlight. Due to varying levels of exposure, Public Health England recommend that all UK residents take **10µg daily** supplement in the winter months (October to March). A supplement is also necessary if you are pregnant or breastfeeding; aged 65 or over; aren't exposed to much sun. For more information, talk to your GP or another health professional, or see:

www.nhs.uk/Conditions/vitamins-minerals

The UK vegan society recommend the **VEG1 tablet** which provides many of the essential nutrients as a simple supplement for those consuming a plant-based diet.

8 tips for eating well

1. Base your meals on starchy foods
2. Eat lots of fruit and vegetables
3. Get your protein from beans and tofu rather than processed meat substitutes.
4. Cut down on saturated fat (coconut and palm oil) and sugar
5. Eat flaxseed or chia seeds daily for omega-3 fats
6. Eat less salt – no more than 6g a day for adults
7. Get active and aim for a healthy weight
8. Drink plenty of water

Remember fruit juice and/or smoothies should be limited to no more than 150ml per day

Lower Go for lower fat, salt and sugar products

Less Use less oils and spreads.
Choose foods high in fat, salt and sugar less often.

Least Choose foods with less processing and added sugar, oil and salt

Diet and health

Health isn't just about being a healthy weight. A healthy diet will keep you feeling well and prevent many common chronic conditions such as heart disease, type 2 diabetes and some cancers. A plant-based diet has been shown to be one of the healthiest diet patterns you can choose. However, you may come across other diet patterns being recommended by health professionals. This includes a low carbohydrate diet. Although there are some short-term benefits to this type of diet, unfortunately, studies have shown that in the longer term, this type of diet, especially if high in animal-derived protein and fat, is detrimental to health.

Benefits of a Planned Plant-Based Diet

Weight management	Effective for long-term weight control because a plant-based diet contains foods that are lower in calories yet high in nutrients, including fibre.
Cardiovascular disease (CVD)	Plant-based diets are effective at reducing the risk of heart disease and its risk factors (high blood pressure, high cholesterol, type 2 diabetes).
Cancer	People on a long term healthy plant-based diet can reduce their risk of cancer. It has also been shown to improve survival after a cancer diagnosis. The World Cancer Research Fund recommends a diet consisting of predominantly healthy plant foods.
Type 2 diabetes	Reduces the risk of type 2 diabetes. For those with Type 2 diabetes, it can improve blood sugar control better than standard approaches and can even halt the progression of the disease.
Non-alcoholic fatty liver	Strongly associated with obesity, insulin resistance, diabetes and CVD, all of which are prevented with a healthy plant-based diet.
Dementia	Shares the same risk factors as CVD, which are improved with a healthy plant-based diet. Healthy lifestyles could prevent more than a third of cases.
Improved longevity	Those eating predominantly plants live longer, healthier lives. A healthy plant-based diet protects DNA by helping maintaining telomere length.
Emotional & mental well-being	Promotes a healthy gut microbiome. These friendly bacteria produce unique chemicals (SCFAs) that act in the brain and provide a sense of well-being.
Improves fitness	Polyphenols and antioxidants reduce inflammation and promote faster recovery times and pre-training fitness.

Environmental impact and sustainability

Our diet choices can have a significant impact on the environment. Animal agriculture is a major driver of climate change, water pollution, land degradation, loss of wildlife and biodiversity, deforestation and ocean destruction. Animal agriculture, from field to fork, uses more than 80% of farmland and produces more than half of all food-related greenhouse gases. It requires significantly more water than just growing plants for food.

Daily environmental impact dietary comparison

Plant-based diet uses the least land area, 4m², and the lowest amount of fresh water, 400 litres, which is about 52 minutes of a regular showering. It also has the lowest carbon footprint of 1.5kg CO₂ (equivalent to 6 miles of regular driving) .

The average UK diet uses over 4 times as much land at 16m² and more water, 620 litres which is a about 80 minutes of a regular shower. It also releases 3 times the CO₂ at 4.7kg (equivalent to 19 miles of regular driving).

Low carbohydrate diets high in animal products have the worst environmental impact. They require nearly 5 times the land at 19m². Almost double the amount of water; 760L, equivalent to 98 minutes of showering. Releasing the highest amount of CO₂ nearly four times as much as a plant-based diet, at 5.8kg (or 23 miles driving).

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

How can I find out more about healthy eating?

To find out more:

- get general advice from www.nhs.uk/live-well/eat-well

Contact your local community dietitian, you can do this through your health centre or GP. You could contact your local NHS health promotion unit if you have one.

- for healthy eating ideas, handy tips and recipes visit, www.nhs.uk/change4life

The Eatwell Guide - the main source and structure of this guide
www.nhs.uk/live-well/eat-well/the-eatwell-guide

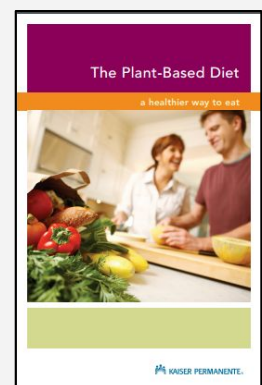
The NHS also provide a useful resource for a vegan diet
www.nhs.uk/live-well/eat-well/the-vegan-diet

Another good guide by Kaiser Permanente, a USA health provider
<http://www.kphealthyme.com/Healthy-Eating-Active-Living-Programs/Education-libraries/Plant-Based-Diet.aspx>

The PCRM's Power Plate
. www.pcrm.org/search?keys=power+plate

Websites with Recipes and More

- | | |
|--|--|
| • fatfreevegan.com | • forksoverknives.com/category/recipes |
| • 21daykickstart.org | • monkeyandmekitchenadventures.com |
| • engine2diet.com | • pcrm.org/health/diets/recipes |
| • straightupfood.com | • rebootwithjoe.com/recipes |
| • nutritionfacts.org | • plantbasedhealthprofessionals.com |



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The Plant-Based Eatwell Guide

This is a plant-based adaptation of Public Health England's Eatwell guide (2016). It aims to help you transition to a healthy and sustainable diet. It shows food groups in the proportions that they should contribute to the overall diet.

Check the label on packaged foods

Each serving (150g) contains

Energy	Fat	Saturates	Sugars	Salt
1046kJ 250kcal	3.0g	1.3g	34g	0.9g
13%	LOW	LOW	HIGH	MED
4%	7%	38%	15%	

of an adult's reference intake

Typical values (as sold) per 100g: 697kJ / 167kcal

Choose foods lower in fat, salt and sugars

Vitamin B12



25µg daily supplement or 3 daily servings of fortified foods

Herbs, spices and fermented foods



Adds flavour and provides antioxidants and probiotics and are often anti-inflammatory

Per day



2000kcal

2500kcal = ALL FOOD + ALL DRINKS

Fruit and vegetables



Eat at least 5 portions of a variety of fruit and vegetables every day

Choose wholegrain or higher fibre versions with less added fat, salt and sugar



Ultra-processed foods



Salt, sugar & fat
Eat less often and only small amounts



Oil & fats

Plant-based dairy alternatives
Choose unsweetened, calcium and vitamin D fortified versions



Beans, pulses, nuts, seeds and plant protein
Eat beans, peas and lentils, include one tbsp of ground flaxseed or chia seeds for essential omega-3 fats. Consume less meat substitutes

