

Writing down your motivations and goals may help you keep on track.

What is your main motivation for going plant-based? (Health, Environment, Animals...)

What goal(s) are you aiming for? (More energy, be healthier, feel happier, improve skin...)

Example daily meal plan

Breakfast

Overnight soaked fruits and oats: Oats, dried apricots, sultanas, pumpkin seeds, mixed nuts, ground flaxseeds. Sweeten with molasses and/or brown sugar. Soaked overnight with fortified soya milk drink.

£0.79 pp

Energy	520 kcal	Protein	14g	Fat	24g	Saturates	2.9g	Sugars	33g	Fibre	10g
	26%		MED		HIGH		LOW		MED		HIGH
					35%		14%		27%		33%

Lunch (serves 4)

Bean Burrito: Tortilla wraps, sweet potato, kidney beans (1 can), chopped tomatoes (1 can), onion, sweet corn (1 can), jalapenos. Add salt and stock powder. Rice (½ cup + 1 cup water). Salad: lettuce, tomato, cucumber. Sauces: Vegan mayo, mexican chili sauce. Sprinkle with nutritional yeast.

£0.85 pp

Energy	560 kcal	Protein	16g	Fat	8g	Saturates	3.5g	Sugars	18g	Fibre	17g
	28%		MED		LOW		LOW		LOW		HIGH
			23%		11%		17%		15%		57%

Dinner (serves 2)

Lemon & ginger broccoli noodles: Sliced broccoli (1 head), onion, butter beans (1 tin). Cook the noodles with chopped ginger, stock powder, chili powder and flakes. Five spice. Serve with lemon juice, soy sauce, siracha sauce and toasted sesame seed oil. Sprinkle with nutritional yeast and sesame seeds.

£1.71 pp

Energy	500 kcal	Protein	22g	Fat	11g	Saturates	1.7g	Sugars	7g	Fibre	14g
	25%		MED		LOW		LOW		LOW		HIGH
			31%		16%		9%		6%		47%

Dessert

Frozen Banana Chocolate: Chopped frozen banana, cocoa powder, peanut butter, date syrup or brown sugar.

£0.21 pp

Energy	220 kcal	Protein	4g	Fat	5g	Saturates	0.9g	Sugars	30g	Fibre	4g
	11%		LOW		LOW		LOW		HIGH		MED
			6%		7%		4%		25%		13%

• Daily Energy: 1800 kcal
Food weight: 1.7 kg (3% lb)
Omega 3 fats: 2.8 g (ALA)
Calcium, Ca: 703 mg
Iron, Fe: 17.2 mg
Folate: 544 mg
Vitamin B12: 3.1 µg

- ✓ Filling ✓ Nutritious ✓ Affordable
- ✓ Eco good ✓ Quick ✓ 5-a-day
- ✓ Option to include additional snacks

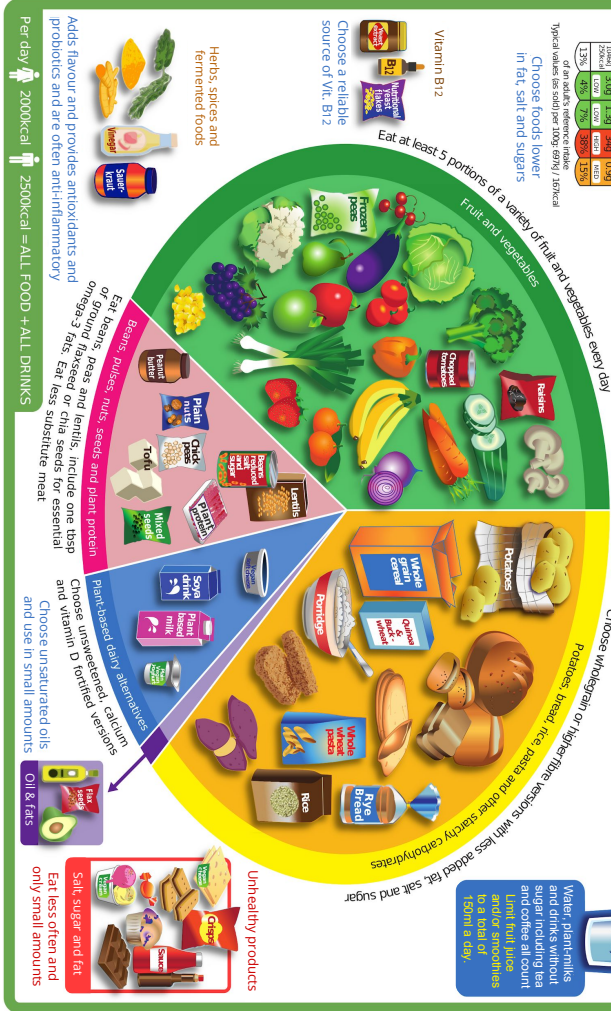


The Plant-Based Eatwell Guide

Helping you eat a healthy, balanced plant-based diet

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.



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 minimal 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 might want to check with 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 on 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. Choosing a B12 supplement is the cheaper and most reliable option.

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
- at home cooking
- 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.

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 45% of the land and produces significant proportion of greenhouse gases and requires 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).

Average UK consumption 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 release 3 times the CO₂ at 4.7kg (equivalent to 19 miles of regular driving).

Low carb diets which are 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 Kcal, 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 US health provider <http://www.kphealthyme.com/Healthy-Eating-Active-Living-Programs/Education-libraries/Plant-Based-Diet.aspx>

Also the PCRM have produced a guide to the Power Plate. www.pcrm.org/search?keys=power+plate

Websites with Recipes and More

- | | |
|--|--|
| • fatfreevegan.com | • forksoverknives.com/category/recipes |
| • 21daykickstart.org | • drmcdougall.com |
| • engine2diet.com | • pcrm.org/health/diets/recipes |
| • straightupfood.com | • rebootwithjoie.com/recipes |
| • Nutritionfacts.org | • plantbasedhealthprofessionals.com |



Diets and health

Health isn't just about being a healthy weight. A healthy diet will keep you feeling well and prevent many common chronic diseases such as heart disease, 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

Obesity and hypertension	Effective for long term weight control and reducing hypertension. Studies show it can be as effective as medication in lowering blood pressure.
Cardiovascular disease (CVD)	Shown to reduce CVD mortality. A no oil whole food plant-based diet can stop and reverse heart disease.
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 plant foods. It may even reverse early stages of some cancers.
Type 2 diabetes	Reduces the risk of diabetes. For those with diabetes, it can improve glycaemic control better than standard approaches and can even reverse the disease and improve the damage to body organs.
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/avoided with a healthy plant-based diet. Healthy lifestyles could prevent a third of cases.
Improved longevity	Those eating predominantly plants, live longer and healthier. A healthy plant-based diet protects DNA by helping protect telomere length.
Emotional & mental well-being	Promotes a healthy gut microbiome. These friendly bacteria produce unique chemicals (SCFA) that act in the brain and provide a sense of well-being.
Improves fitness	Polyphenols and antioxidants reduces inflammation and promotes faster recovery times and pre-training fitness.

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 vegetables oils and spreads contain mainly unsaturated fats, which are healthier than butter and animal fat, these should be kept to a minimum as these 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.

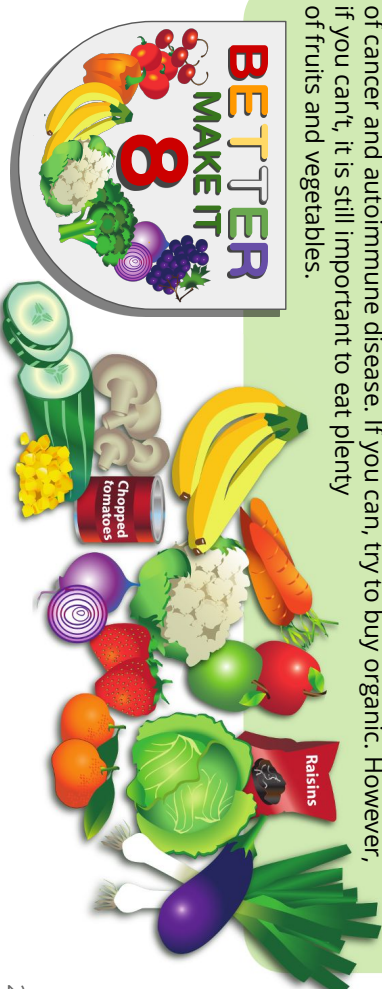
Let's take a closer look at each of the food groups...

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). Some herbicides and pesticides found on fruits and vegetables may increase risk of cancer and autoimmune disease. If you can, try to buy organic. However, if you can't, it is still important to eat plenty of fruits and vegetables.



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. Just watch the fats you add when you're cooking and serving these foods, as this contributes to increased calories per portion.

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



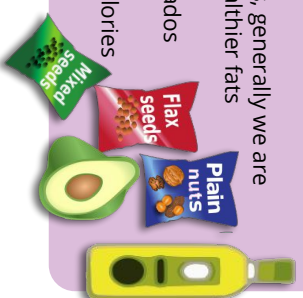
A closer look at

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 fats and are predominantly from plant sources.

Choose fats from whole foods like flaxseeds, nuts, and avocados as opposed to refined, liquid oils where possible.

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

Plants do not produce B12. Taking a **supplement is recommended** as a better option to provide the necessary amount. Some foods like yeast extract and nutritional yeast may be enriched, but may not provide an adequate regular amount. *More about B12 in the section about supplements - page 8.*



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 **2.4µg**. We recommend people following a plant-based diet to take a B12 supplement. The ability to absorb B12 varies, particularly with age, so take a **25-100µg daily** or **2000µg weekly** supplement is suggested. Higher doses may be needed if 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. Although some seaweeds can have a very high amount. 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 an 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.

One option to make sure you are getting all the essential nutrients on a plant-based diet is to take the VEG1 tablet from the UK vegan society.

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 the least processing. Beans rather than meat substitutes, as these can be ultra-processed

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 salt 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.

Daily energy requirements		
Age	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 3 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 which is commonly obtained from fish. 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 **250mg** dosage of DHA for adults per day. This is particularly advisable during pregnancy and breast-feeding.

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, and almond. 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 kim-chi 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.

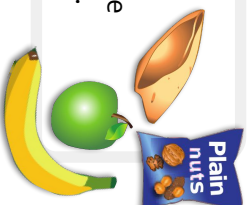
Sugary drinks are one of the main contributors to excess sugar consumption amongst children and adults in the UK. Cordials and squashes are high in liquid sugar, so they are best avoided, aim to switch to water only.

Alcohol contains lots of calories and should be limited to no more than 14 units per week for men and women.



Healthy Snacks

Snack from the categories of the Eatwell guide. Aim to have wholefood snacks that are minimally processed. These include fruit, nut 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, fat, 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 fat, 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 honey, syrups 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).

Each serving (150g) contains

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

of an adult's reference intake
Typical values (as sold) per 100g: 697kJ/ 167kcal

Cutting down on saturated fat

Cutting down on saturated fat can lower blood cholesterol and reduce your risk of heart disease, stroke, 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** 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 and cocoa butter, 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 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 dementia. 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 honey, syrups and unsweetened fruit juice.