



The Association
of UK Dietitians

Vegetarian
for Life



Nutrition for older vegetarians and vegans

Guide to the nutritional needs of older adults, including those living in care homes or hospitals. Contains answers to frequently asked questions, such as how to stimulate appetite or boost nutrient intake, and good sources of protein for those on texture-modified diets

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Three in ten people in Britain have cut down on meat, according to a survey published in 2016 (1). Interestingly, older people (65 to 79 years) are leading the way. They are twice as likely as 18- to 24-year-olds to have reduced their meat consumption. This trend is also apparent in care homes. A recent survey estimated there are now 7,000 vegetarians and vegans in residential and nursing care homes in the UK and the number of vegans has more than doubled since 2014 (2).

As we age, how we eat for health may change over time. It is important to focus on maintaining muscle strength, avoiding unplanned weight loss rather than unwanted weight gain, with a stronger focus on quality and choosing nutrient-rich foods. This guide aims to help older vegetarians and vegans to maintain or improve their health and wellbeing.

Getting a balanced diet

Over recent years, research has shown that vegetarians and vegans tend to be very healthy – perhaps more so than their meat-eating peers (3). A well-planned plant-based diet can benefit a range of conditions, such as heart disease and high blood pressure, as well as reduce the risk of type 2 diabetes and obesity (4). Along with these health benefits come benefits to the planet, because plant foods tend to be less resource-intensive compared to animal foods (5).

A vegetarian diet is one that excludes meat, poultry and seafood. Vegans avoid all food and drinks that come from animals including eggs, dairy and honey.

The Vegetarian Eatwell Guide (page 4) (6) is a good way to check you are getting the balance right. The guide shows each food group as a proportion of a balanced diet. Also see the daily plan on page 12.



Meeting nutritional needs

Generally speaking, basic dietary guidelines don't change as people get older. Whatever the age, whether meat-eater, vegetarian or vegan, we need about the same amount of fat, fibre and carbohydrates as younger adults (7). But what about protein?

STAYING STRONG WITH PROTEIN

To support good health, older adults need more protein than younger adults. This is because both the amount of muscle and a person's strength tend to decline with older age. This reduction can contribute to an increased risk of falls and a loss of independence. However, a higher protein intake in addition to daily physical activity, appears to help older adults maintain healthy muscles. Therefore, healthy older adults are advised to aim for an average daily intake of 1–1.2 grams of protein per kilogram of body weight (8,9). For example, if you weigh 64kg (about 10

stones), aim to consume an average of 64–77g of protein per day. Older adults who are active or with certain health conditions may need even more protein (8); a dietitian can provide further advice on this.

All plant foods contain some protein, but the best sources for vegans and vegetarians are outlined on page 6. Proteins are made up of chains of amino acids. Some of these amino acids are essential, because the body can't make them. All plant proteins contain all 8 essential amino acids that adults require, but some foods can be lower in one or more. Eating a variety of different plant proteins will provide all the essential amino acids your body needs. You don't need to combine specific protein foods at each meal because your body can store amino acids until needed. Soya and soya products are an excellent source of protein and contain good amounts of all essential amino acids.



Vegetarian Eatwell Guide

Check the label on packaged foods

Each serving (150g) contains

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

Use the Vegetarian Eatwell Guide to help you get a balance of healthier and more sustainable food. It shows how much of what you eat overall should come from each food group.



Water, lower fat milk, sugar-free drinks including tea and coffee all count.

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

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



Eat less often and in small amounts

Vegetarian proteins: beans, pulses, eggs, nuts etc.
Eat a wide variety of vegetarian proteins including plenty of beans and pulses. Choose vegetarian meat-alternatives lower in fat and salt



Dairy and alternatives
Choose lower fat and lower sugar options



Choose unsaturated oils and use in small amounts



Per day 2000kcal 2500kcal = ALL FOOD + ALL DRINKS

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Protein-rich foods

FOOD	PORTION SIZE	PROTEIN (G)*
Vegetarian meat alternatives and legumes		
Seitan (made from vital wheat gluten)	75g	18
Soya mince	100g	17
Quorn mince**	100g	15
Veggie sausages	2 (80g total)	14
Firm tofu	80g	12
Canned beans, chickpeas, lentils	120g	9
Baked beans	200g (½ standard can)	9
Frozen edamame beans (young soya beans)	80g cooked	7
Lentil soup	200g	5
Frozen peas	80g cooked	4
Falafel	50g (2 pieces)	4
Houmous	50g (3 tbsp)	3
Nuts & seeds***		
Peanuts	30g	8
Nuts, average	30g	5
Pumpkin seeds	10g	3
Hemp seeds	10g	3
Seeds, average	10g	2
Eggs, dairy and alternatives		
Hard cheese e.g. Cheddar	30g	8
Eggs	1 medium sized egg	6
Cow's milk/soya milk	200ml	6
Cow's milk yoghurt/soya yoghurt	120g/125g	5
Grains		
Bread (wholemeal)	1 slice (40g)	4
Pasta (white or brown)	½ cup (125 ml) cooked	4
Quinoa	½ cup (125 ml) cooked	4
Bread (white)	1 slice (40g)	3
Oats	30g uncooked	3
Rice (white or brown)	½ cup (125 ml) cooked	2
Dessert		
Soya dessert	125g	4
Rice pudding	100g	3
Custard – dairy or soya	100g	3

* Typical values; check nutrition labels for variations in brands.

** Some Quorn products are not suitable for vegans; check the ingredients.

*** Although nuts and seeds can be a good source of protein and other nutrients, some older people may find it difficult to chew and digest whole nuts and seeds, for example, those who wear dentures or take medications that increase mouth dryness. Ground nuts and seeds or nut and seed butters require less chewing and because particle size is smaller, nutrients can be more easily absorbed.

For reference, legumes are any plant that grows in pods, including fresh soya beans, peas, beans and pulses. Pulses are the dry edible seed within pods, e.g. dried beans, lentils and chickpeas. Strictly speaking peanuts are legumes, although they are more commonly thought of as nuts.

Main meals usually contain good amounts of protein. Some ideas to boost protein at other meals include:

- **Breakfast** – add ground or whole nuts, seeds or their butters, dairy, protein powder, soya milk or yoghurt to cereal, porridge or smoothies. Serve a cooked breakfast including veggie sausages, egg or scrambled tofu, baked beans and toast.
- **Light meals** – add pulses to soups (canned versions are easiest), seeds, tofu or legumes to salads, meat alternatives/tofu in sandwiches and finish with a soya or dairy yoghurt.

Getting enough vitamins and minerals

There aren't specific vitamin and mineral recommendations for older adults. However, the ability to digest, absorb, and use them does decrease with age (10). Also, research indicates that older adults living in care homes and hospitals may lack certain vitamins and minerals including vitamins C and D, iron and folate (11).

Compared to younger people, an older adult's immune system is more sensitive to how well-nourished they are. So older adults lacking certain nutrients may be more likely to get infections. Additionally, more infections can affect a person's food and drink intake and worsen their nutritional status, leading to a downward spiral in health. The good news is that these effects on the immune system tend to be reversed when people receive the nutrients they are lacking. If unable to get the nutrients from your diet, taking a vitamin and mineral supplement may well help (12). But because some vitamins and minerals can be harmful in high doses, do consult your GP or a Registered Dietitian before taking supplements or making other similar changes to your diet.

Most vitamins and minerals are abundant in vegetarian and vegan diets. However, to optimise health, it's important to pay attention to the following nutrients.

VITAMIN B12

A regular intake of vitamin B12 is needed to keep nerve and blood cells healthy. Not getting enough B12 can lead to tiredness and anaemia and cause nerve problems such as tingling and numbness in the hands and feet. Low levels of B12 may also increase homocysteine levels, increasing your risk of cardiovascular disease (13).

Dietary sources of B12 include free-range eggs and dairy or B12-fortified foods e.g. breakfast cereals, plant alternatives to milk and yoghurt, margarine, yeast extract and nutritional yeast flakes.



Vitamin B12 is made by micro-organisms and isn't found in plants, so fortified foods and supplements are the only proven reliable sources of B12 for vegans. To ensure adequate B12, The Vegan Society recommends that vegans aim for a daily intake of 3 micrograms (mcg) from fortified food, or take a 10 mcg supplement daily, or a 2,000 mcg supplement once a week. Consuming a portion of a B12 fortified product at least twice a day will likely meet this recommendation (14).

B12 from fortified foods may be easier to absorb than the B12 found in meat, poultry and fish, and older adults may have reduced absorption of B12 from animal sources. This has led some health organisations to recommend older adults obtain most of their B12 from vitamin supplements or fortified foods (15).

CALCIUM

A balanced diet, including calcium and vitamin D, is important to keep bones healthy and prevent fractures. Dairy foods are an excellent source of calcium for vegetarians. Most plant foods also contain some calcium. Especially good sources are highlighted in the daily plan on page 12.

As we age, we lose bone mass, so it's important for older adults to get enough calcium. Adults require approximately 700 mg of calcium a day. Post-menopausal women are advised to aim for 1,200 mg per day, because of an increased risk of osteoporosis (12). Weight-bearing exercise also helps to keep bones healthy.

Including two portions of dairy or calcium-fortified products, e.g. 200ml milk or 120g yoghurt or fortified plant-based alternatives, and some calcium-rich foods daily will help you meet your requirement. For post-menopausal women aim for 3–4 portions of dairy or calcium-fortified products and plenty of calcium-rich foods daily. If this is difficult, consider taking a calcium supplement.



VITAMIN D

Vitamin D helps the body to absorb calcium. It is needed to maintain healthy bones, teeth and muscles. We get vitamin D from summer sunlight on our skin, which is converted into vitamin D, and from our diet. Food sources of vitamin D include milk and free-range eggs, and fortified foods such as breakfast cereals, plant-based dairy alternatives and margarines. Note that a form of vitamin D called D3 is not suitable for vegans unless it is made from lichen.

The Department of Health recommends regularly having food sources of vitamin D. In addition, because it is difficult to get enough vitamin D from sunshine and food alone, it also recommends taking a 10 mcg supplement of vitamin D daily during autumn and winter months, and all year around for those aged 65 or over or anyone who is not exposed to much sun (17,18).

IODINE

Iodine is needed to make thyroid hormones. Thyroid hormones are used in many processes, including controlling metabolism. Milk and dairy foods are good sources of iodine for vegetarians. Iodine is also found in plant foods, but the amount varies depending on how much iodine there is in the soil. Although seaweed is a source of iodine, it may not be the best option because iodine content is quite variable and you may get too much iodine, which can be harmful. 150mcg of iodine per day is recommended (19).

Vegetarians who regularly consume dairy foods are likely to be getting enough iodine (20). Vegans may not be consuming enough iodine because many plant-based alternatives to dairy products aren't fortified with iodine, and it is difficult to know how much iodine is present in plant foods. Therefore, a supplement containing iodine is the most reliable source for vegans, particularly those who are not consuming products fortified with iodine (21). You can check whether an item is fortified with iodine by looking at the nutrition information panel.

IRON

Iron is needed to make red blood cells, which carry oxygen around the body. Not getting enough iron from your diet can lead to iron deficiency anaemia. Many plant foods provide dietary iron including oats, wholegrain cereals and bread, fortified breakfast cereals, legumes (including peas, beans, tofu and lentils), green leafy vegetables, nuts, seeds and dried fruits. Legumes and fortified breakfast cereals are especially good sources.

The iron found in plant foods is not absorbed as freely as the iron in animal foods such as meat and eggs. You can greatly increase the amount of iron your body absorbs from plant sources by eating foods high in vitamin C at the same meal, e.g. citrus fruits and juices, berries, green leafy vegetables and peppers. Black tea and coffee can reduce iron absorption so these drinks should be avoided at mealtimes if trying to increase iron levels (22).



OMEGA 3

Alpha-linolenic acid, or ALA, is a type of omega 3 fat that is an essential fatty acid. This means you need to get it from your diet because your body can't make it. Plant sources of ALA include walnuts, seeds such as chia, hemp and ground linseeds (also known as flaxseed) and oils made from these seeds. Some foods have also had omega 3 added to them such as eggs, milk, yoghurt and spread.

To meet the minimum requirements for omega 3 fatty acids (23), aim to eat either six walnut halves (20g), or a tablespoon of chia seeds or ground linseeds or 2 tablespoons of hemp seeds daily. Choosing oils such as vegetable (rapeseed) oil for cooking, and using flaxseed, hempseed and walnut oils uncooked is also recommended (24).

Other types of omega 3 fats found in oily fish (EPA and DHA) have also been shown to have health benefits. The body can convert a small amount of ALA into EPA and DHA so it is not essential to get them from your diet as long as you get adequate ALA.

EPA and DHA are made by microalgae so there are vegetarian/vegan supplements available but it is not yet clear if they benefit vegetarians and vegans (25). If you do decide to take an omega 3 supplement, those with at least 250mg of EPA and DHA are recommended (26).

SELENIUM

Selenium has several roles in the body, one of which is to help protect against infection. It is present in several plant foods including nuts, seeds, grains and beans, but the amount depends upon the selenium content of the soil. Brazil nuts are generally high in selenium and 30g a day will likely meet nutritional requirements.

People living in care homes appear to have lower levels of selenium than free living individuals (27). Selenium supplementation provides a reliable source of selenium and may be beneficial in this population (28).

ZINC

Zinc is important for making new cells, immune function, and wound healing. Good dietary sources include wholegrains, legumes and soya products, nuts and seeds, and fortified breakfast cereals, dairy products and eggs. A varied and balanced diet is likely to meet recommendations for zinc intake (29).

The Vegan Society website has further information on these nutrients, and how to meet nutritional requirements for vegans.



Putting it all together

The following daily plan will help you meet your nutritional needs.

FOOD GROUP (portions per day)	PORTION SIZES	CALCIUM-RICH FOODS	NOTES
Fruit and vegetables (at least 5)	2–3 serving spoons vegetables 1 cereal bowl salad 1 medium piece fruit e.g. apple 2 small pieces of fruit e.g. plum 1 tablespoon dried fruit 150ml fruit juice/smoothie	Broccoli, napa cabbage (Chinese leaf), kale, pak choi, okra, spring greens, watercress, orange, dried figs	Provides vitamin C, vitamin A, folate, calcium, iron and fibre. Try to include a variety of colours daily. Limit juice to 150ml/day unless trying to gain weight.
Starchy carbohydrates (3 or more)	40g breakfast cereal 2 medium slices bread 1 cup cooked pasta, rice Fist-sized cooked potato	Calcium-fortified breakfast cereal*, calcium-fortified bread*	Provides energy, fibre, B vitamins, calcium, iron, protein. Eat more servings if active.
Protein-rich foods (2–4)	½ cup cooked legumes 80–100g tofu or meat substitute Small handful nuts or seeds 2 tablespoons nut/seed butter 2 eggs	Calcium-set tofu*, cooked soya beans, sesame seeds, tahini, almonds, almond butter	Legumes provide iron, zinc, fibre and energy. Include a selection at most meals. Walnuts and seeds (chia, hemp, linseeds) provide omega 3 fatty acids.
Dairy and alternatives (2–4)	200ml dairy milk or plant-based alternative 120g yoghurt	Cow's milk, yoghurt & cheese, calcium-fortified dairy alternatives*	Provides calcium, protein and energy. Choose low-fat dairy unless trying to gain weight.
Oils and spreads (e.g. rapeseed, flaxseed oil), margarine	Small amounts		Provide energy, vitamins A, D (fortified margarine) and E (vegetable oils) and omega 3 fatty acids (rapeseed, flaxseed, hempseed, walnut oil).
Vitamin B12 source (1)	Eggs or dairy foods twice/day Fortified products twice/day Supplement: 10 mcg daily or 2,000 mcg weekly		Breakfast cereals, dairy alternatives, margarine, yeast extract and nutritional yeast flakes are often fortified.

* To check if an item is calcium-fortified, look for the word 'calcium' in the ingredients list or check the nutrition information for calcium content.

If you are losing weight, then your diet may not have enough calories and nutrients. If you can, eat more servings from the daily plan. The following section has more ideas to boost nutritional intake.

Maximising nutritional intake

Appetite can lessen with age, and some people find they are not able to eat as much as they used to. Many other factors can affect the nutritional intake of older adults, including health conditions such as dementia or dysphagia (swallowing difficulties), medications or medical treatments, loneliness or low mood. To stop unplanned weight loss, increasing the calorie and protein content of food and drinks (known as food fortification) is recommended along with having additional snacks (10).

Many of the food items commonly used to fortify foods and drinks may be suitable for vegetarians, including eggs and dairy products, for example. Always ensure that cheese is made with non-animal rennet. If giving sweets, pastries, or yoghurts, check that they do not contain gelatine or lard, which come from animal sources. Foods items suitable for enriching vegan meals are illustrated below.

SUGGESTIONS TO ADD EXTRA CALORIES AND PROTEIN

- **Sandwiches:** include mock meats, tofu or egg, add mayonnaise, cheese, margarine or salad cream – or vegan versions of these. For those with a preference for sweet foods, try nut butters with jam/banana, or bananas and tahini (sesame seed paste).
- **Vegetables, potatoes and salads:** add grated cheese, margarine, sauces, cream, oils, dressings, mayonnaise or croutons – or vegan versions of these.
- **Breakfast cereals:** add smooth nut/seed butters, ground nuts, cream, soya cream, coconut milk/cream, protein powder.
 - **Soups, stews and sauces:** blend in lentils, beans, nuts or silken tofu.
 - **Smoothies:** make a chocolatey smoothie by blending peanut butter, cocoa powder, ripe banana and dairy/non-dairy milk of choice.



FOODS TO FORTIFY VEGAN MEALS AND DRINKS

Food	Measure	Energy (kcal)	Protein (g)
Soya protein powder	30g	116	27
Pea protein powder	30g	107	23
Gram (chickpea) flour	30g	106	7
Almond nut butter	25g	163	6
Peanut butter	25g	152	6
Cashew nut butter	25g	165	5
Higher protein soya yoghurt	125g	89	8
Soya yoghurt	125g	63	5
Creamed coconut	15g	105	1
Oat cream	15ml	22	0.1
Vegan cheese	30g	91	0
Vegan mayonnaise	15g	66	0
Cream cheese alternative	20g	48	0
Syrup	15g	45	0
Vegetable oil	Teaspoon	25	0
Dairy-free spread	5g	25	0
Soya cream	15g	23	0

Adapted from Heather Russell, Dietitian, The Vegan Society

HELPFUL TIPS TO MAXIMISE INTAKE

- A little and often approach is helpful for maximising intake. In addition to meals, try to include snacks mid-morning, mid-afternoon and at supper time.
- Milky drinks during the day and at bedtime are nourishing. Take drinks after or between meals to avoid filling up. Protein or milk powder can be added to boost protein intake.
- White pasta, white rice, white bread and cous cous are less bulky than whole grains and may be easier to manage.
- Dietary restrictions such as diabetic diets or low-fat diets can be more

- relaxed in older persons, especially in those at risk of undernutrition (10).
- Try sharing mealtimes with others; this can make eating and drinking more enjoyable and can stimulate dietary intake.
- A pleasant dining environment is supportive of eating and drinking well. For example, consider seating arrangements, meal companions, noise levels, lighting and tableware, among other things.

Dementia is a common condition in older age. As the disease progresses, it can affect someone's ability to eat and drink in several ways, often leading to

undernutrition. If you are caring or catering for someone with dementia, there are many ways to enhance mealtime experience, nutrition and hydration. You may find the book 'Practical nutrition and hydration for dementia-friendly mealtimes', and Vegetarian for Life's Memory Care Pledge useful resources (30).

STIMULATING APPETITE

Some ingredients have been shown to enhance the flavour and enjoyment of food.

Try extracts to amplify flavour

- Maple extract enhances glazed vegetable dishes, and almond or vanilla extracts can be used in fruit salads, sauces, puddings and baked items. Start with ½ to 1 teaspoon of extract per recipe.
- Maple, fruit, chocolate or vanilla flavours can be added to nutritional supplements or milkshakes (using soya, rice or oat milks, if not dairy).
- Flavour enhancers such as monosodium glutamate (MSG) can reduce the perceived bitterness or acidity of food, and don't depend on a person's sense of smell. When used in combination with a reduced amount of table salt, MSG is an effective way of reducing the total amount of salt in the diet. Do check with the individual, though, because some people are intolerant to MSG.

Try strongly flavoured foods and ingredients

- Garlic, onions, olives, sun-dried

tomatoes, flavoured vinegars, citrus fruits or ripe berries give a lot of flavour. Use your judgement, though, because some people may avoid or dislike some of these foods.

- Added herbs and spices may be helpful for people with disorders affecting taste and smell.
- Dry rubs are herb and spice combinations that may be added directly to tofu or hydrated TVP (texturised vegetable protein). They perform much the same functions as marinades, but without added liquid or oil.

Adding sugar and fat

- Adding sugar or syrup to vegetables may encourage increased consumption.
- Older adults often prefer high-fat foods because they provide a pleasant creamy texture.
- Sharp-tasting greens and vegetables, such as broccoli, Brussels sprouts, and cauliflower, may be enhanced by a little fat, such as a creamy dressing, cheese sauce, sweet butter or flavoured oils.

Techniques that enhance flavour and sensory enjoyment

- Choose foods that are fresh, brightly coloured, full-flavoured and seasonal and arrange them attractively. Foods that appeal to the eye produce more salivary and gastric (stomach) secretions. Familiarity is also appealing and pleasing.
- Experiment with different shapes, colours, sizes and textures to add

interest throughout a meal. For example, start with a hot, chunky soup; switch to a creamy pasta with tender mushrooms and crunchy steamed asparagus; and then finish with irregular berries. Switching foods may also reduce sensory fatigue, for example eating one bite of vegetables, followed by one of starchy foods, and then nuts and so on.

Arouse hunger

- To stimulate hunger, lift the lid from a food tray to release the aromas just before setting it in front of a diner. This can be achieved at home by eating in the kitchen to savour the cooking smells, or by taking a deep sniff before eating.

These tips are adapted from 'Nutrition for the Older Adult' by Bernstein and Schmidt Luggen (31).

Special diets for older adults

Getting a balanced diet can sometimes seem difficult if you have to follow a special diet, but with a little knowledge it can be done. Here are some ideas to help you meet nutritional needs for some common special diets.

FINGER FOODS DIET

Some people manage meals better if they can pick their food up with their fingers, rather than cutlery. Vegetarians and vegans can still enjoy a balanced and nutritious diet eating finger foods with the following suggestions.

Bread, rice, potatoes, pasta and other starchy foods

- Toast fingers with full-fat margarine or vegan margarine, butter, nut butter, (vegan) cheese spread, (vegan) chocolate spread, marmite or houmous
- Rolls with butter or vegan spread and fillings
- Small sandwiches
- Buttered scones, pancake fingers, fruit loaf, malt loaf or waffles – or vegan versions of these
- French toast
- Tea bread or gingerbread
- Chips, potato waffles, new potatoes, potato croquettes
- Crackers or biscuits with butter or (vegan) margarine and soft or hard (vegan) cheese
- (Vegan) cheese biscuits
- (Vegan) cereal bars

Vegetables

- Cooked carrot sticks or slices
- Celery sticks
- Cucumber slices
- Cooked broccoli or cauliflower spears
- Cooked Brussels sprouts
- Cooked green beans
- Fried or battered onion rings
- Tomato, sliced, quartered or cherry tomatoes

Eggs, beans and other non-dairy sources of protein

- Sliced mock-meats, cut up into pieces
- Chicken-style fingers
- (Vegan) sausages or cocktail sausages

- Beanburgers, cut up into pieces
- (Vegan) pizza or quiche
- (Vegan) fish-style fingers or fish cakes
- Hard-boiled eggs, sliced or quartered, or frittata
- (Vegan) sausage rolls
- Vegetable spring rolls
- Vegetable samosas, onion bhajis/pakorras
- Falafel

Fruit

- Sliced apple, pear, melon, pineapple or mango
- Berries, grapes or banana
- Pear halves or mandarin orange segments
- Dried fruit, e.g. apricots or prunes (no stones)
- Fruit juices or smoothies in cartons

Snacks

- (Vegan) jelly cubes
- (Vegan) ice cream in cones
- Soft muesli bars, cakes, buns or tray bakes
- Savoury snacks, e.g. Quavers, Skips or Wotsits

Milk, dairy foods and alternatives

- (Vegan) milk, milkshakes or thick shakes in cartons (with straws or in cups with lids)
- (Vegan) yoghurt or fromage frais drinks or pouches
- (Vegan) cheese slices, cubes or triangles

Adapted from 'Voices' (Voluntary Organisations Involved in Caring in the Elderly, 1998).



TEXTURE-MODIFIED DIETS

Worldwide standards are in place to help people with dysphagia (swallowing difficulties) receive consistently textured diets, regardless of where they live. These standards are a continuum from liquids to solids and describe texture-modified foods and thickened drinks. Levels are identified by number, colour and descriptors to allow consistent production and testing, as shown in the adjacent diagram. Information and guidance on achieving these new levels can be found on the IDDSI website.

HOW TO MEET PROTEIN REQUIREMENTS ON TEXTURE-MODIFIED DIETS

Good sources of protein for vegetarians and vegans that can easily be incorporated into texture-modified diets include:

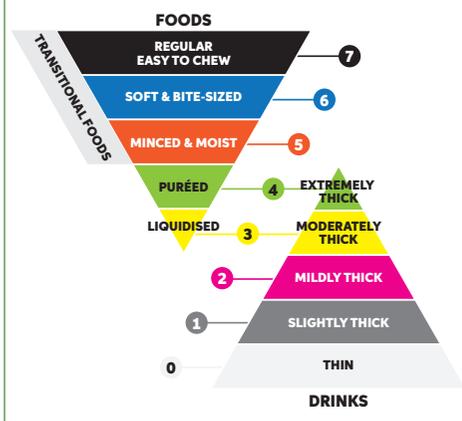
- Legumes e.g. peas, all types of beans, lentils and tofu
- Nuts and seeds and their butters
- Eggs and dairy products
- Meat alternatives and grains

These foods can be ground, puréed, mashed or grated and used to bulk up other foods. For example:

- Beans, lentils and chickpeas can be added to soups, curries and stews, and then blended
- Silken tofu, ground nuts or seeds or nut butter can be added to soups or smoothies

THE IDDSI FRAMEWORK

Providing a common terminology for describing food textures and drink thicknesses to improve safety for individuals with swallowing difficulties



- Nut and seed butters (e.g. peanut, tahini, cashew) add creaminess to soups and stews
- Peanut butter works well in chilli and satay sauce

LOWER-FIBRE DIET

Many plant foods can be high in fibre. While this is healthy for most, some people require a lower fibre diet. Using the main food groups in a balanced diet, the adjacent table identifies some vegan options that may be suitable for lower-fibre diets. The lowest fibre options are marked with an asterisk (*).

FOOD GROUP

LOWER-FIBRE OPTIONS

TIPS & INFORMATION

Fruit and vegetables	Cucumber*, courgette* and carrot without skins Beetroot Butternut squash Baby spinach, cauliflower and broccoli without stalks Canned baby carrots Tomato passata/purée* Fruit/vegetable juice without bits* Avocado Canned peaches* Canned apricots* Canned pears Small ripe banana* Melon without seeds* Pear and apple* without skin and core	Remove skin, seeds and stalks from vegetables, and cook them well. Avocado, broccoli and baby spinach are good sources of vitamin K. Sweet potato, butternut squash and carrot are good sources of carotenoids, which get converted into vitamin A. A small glass of orange juice or a tablespoon of tomato purée are low in fibre and count as one of your '5-a-day'. Avocado can be seasoned and blended to make guacamole.
Starchy carbohydrates	Corn flakes* Rice snaps* Ready oats White bread, bagels, pitta bread, tortillas and English muffins White pasta Rice and rice noodles White potato and sweet potato without skins	Many refined cereals are fortified with vitamin D3 from wool fat, but some gluten-free or organic varieties are vegan-friendly.
Foods rich in protein	Eggs Seitan* Smooth cashew/peanut butter Tofu Soya mince Vegan Quorn Hummus or falafel made from well-blended chickpeas Well-blended lentil soup Soya/pea protein powders*	Seitan contains little fibre compared to other protein-rich plant foods. Dry soya mince contains less fibre than frozen soya mince. Soya/pea protein powders can be blended into sauces or soya milk.
Foods rich in omega-3 fat	Linseed (flaxseed)/hemp seed/vegetable (rapeseed) oil*	Add small amounts of these fats to your food. Use vegetable (rapeseed) oil as your main cooking oil.
Calcium-rich foods	Dairy milk and plain yoghurt* Calcium-set tofu Calcium-fortified plant milk* Plain calcium-fortified soya/coconut yoghurt*	Identify calcium-set tofu by looking for calcium in the list of ingredients. Soya dairy alternatives are best in terms of protein quantity and quality.

General guidelines issued by The Vegan Society (2017) with input from Gastroenterology Dietitian, Jade Sutton

Handy tips regarding vegetarians and vegans

Remember:

- A vegetarian recipe may be enjoyed by meat eaters.
- A vegetarian or vegan does not automatically like all vegetables and fruit.
- Some vegetarians and vegans prefer to avoid meat alternatives.

References

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Leading the way for care facilities and food suppliers

It is important that the care sector responds to the increasing demand for vegan and vegetarian dishes. Vegetarian for Life is here to help you successfully meet the challenge.

Vegetarian for Life is the leading authority on diet and healthy living advice for older vegans and vegetarians. One of the charity's major goals is to improve the standard of vegan and vegetarian catering by promoting its UK List – a directory of care facilities and food suppliers that follow its best practice guide, pledging to cater well and ethically for older vegans and vegetarians.

If you cater for older vegans or vegetarians, our team of nutritionists and roving chef can deliver fully-funded, bespoke caterer training for you, in-house – no matter where you are in the UK. Whether you're after a speaker for an in-house nutrition seminar, or someone to deliver a college lecture series, VfL has the resources to help.

We can also give your team access to our online care caterer training series, entitled 'care catering for vegetarians and vegans'. Furthermore, if you'd like to be known as the very best, we can heavily subsidise full-day care catering courses.

Training can cover a wide variety of topics, including:

- Care catering for older vegetarians and vegans webinar series – Five 30-minute online seminars that you can watch and replay at your leisure. British Dietetic Association accredited.
- Meat-free 101 – A half-day introduction to catering for your vegetarian and vegan residents.
- Dietary diversity and inclusivity in the care sector – If I get dementia will they serve me meat?
- Vegan baking – Full day course to learn the secrets to creating tasty bakes without eggs or dairy.
- Vegan cheese masterclass – Inspiring half-day course for insight into the textures, flavours and health benefits of raw, fermented nut cheese and how to make it.
- Care caterer training – One-day caterer training at Demuths or The Vegetarian Society Cookery School.
- Cookery demos at events – Practical cookery demonstrations at small- or large-scale events and conferences.
- Chef training – One-to-one or with a small group of chefs to help improve their veg*n menu offering and assist with any issues.

Our training includes practical demonstrations and the opportunity to taste the food.

For more information or to book any of our training, please contact Ellie Murphy, Cookery & Training Outreach Coordinator – ellie@vegetarianforlife.org.uk or 0161 257 0887.

Author: Beth Rougier, Dietitian registered with the Health and Care Professions Council

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The Association of UK Dietitians



Vegetarian for Life is a UK charity dedicated to improving the quality of life for older vegetarians and vegans. Offering support, advice and information, we work directly with individuals and also with establishments that cater for older adults, such as care establishments.

Also available from Vegetarian for Life:



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83 Ducie Street, Manchester M1 2JQ
vegetarianforlife.org.uk | 0161 257 0887

@VFL_UK VFLUK

Registered charity number 1120687

Patrons: Rose Elliot MBE, A. C. Grayling MA, DPhil, FRSL, FRSA

