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# Eating well & coping with side effects on a vegan diet

Rehabilitation and Support

**A guide for patients and carers**

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## Why is nutrition important?

Nutrition is important during every stage of life and provides your body with the energy and nutrients you need to function, fight off infection, rebuild tissue and recover from strenuous activity.

During treatment, your body requires energy to help cope with side effects and help fight off fatigue. Good nutrition may also improve your response to treatment.

This booklet contains advice and guidance on how to implement a balanced vegan diet during radiotherapy and chemotherapy. You may find some information is not applicable to your situation. If you are experiencing any problems relating to your food and drink intake, please consult your doctor or health professional.

## Dealing with diabetes

If you have diabetes you should consult your doctor or healthcare professional who can advise you on the steps you should take to safely implement a vegan diet. This booklet focuses on ways to fortify meals with foods high in carbohydrates and fat that are suitable for individuals with diabetes. It is important to not restrict food intake as this may lead to negative side effects and not provide enough total energy intake. If you have any concerns over your blood sugar levels whilst following the recommendations in this booklet or are having difficulty following a vegan diet with diabetes, please contact your diabetes specialist nurse or ask for a referral to a dietitian for further advice.

## Food safety

Food hygiene is essential in reducing and preventing the risk of infection and food poisoning. This is especially important during treatment when your immune system may be weaker. Hygienic food preparation should be practiced by everybody.

### **Some simple rules to remember are:**

- Always wash your hands before handling different foods
- Always prepare food on a clean surface
- Store food at the correct temperature and in the correct location
- Stick to (just checking might not be enough) 'best before' and 'use by' dates on food items
- Wash fruit and vegetables before preparing them
- Make sure that any utensils you use are clean



# Eating well: Good food guide



We should all try to eat a wide variety of different foods to make sure we get the nutrition our bodies need.

<b>Foods</b>	<b>Function</b>
<b>Tofu, soya products, pulses (beans and lentils), vegan Quorn, nuts and seeds, seitan, tempeh</b>	These are a good source of protein, which is needed for the growth of body tissue, muscle strength and wound healing. They also contain vitamins and minerals.
<b>Non-dairy alternatives e.g. soya, oat or nut milks, soya yoghurt, dairy free ice cream, dairy free cheese</b>	These contain protein, fat, vitamins and minerals. Ensure that these products are fortified with added vitamins and minerals, especially calcium. If you are losing weight then choose the full fat varieties.
<b>Bread(s), cereals, pasta, rice, potatoes, noodles, couscous, biscuits, crackers</b>	These starchy carbohydrate foods contain energy. Some may also contain vitamins, minerals and fibre.
<b>Fruits and vegetables</b>	These are good sources of vitamins and minerals, however they are low in protein and energy.
<b>Sugar, syrup, treacle and sugary foods.</b>	These are high in energy and are useful to add into your diet if you are losing weight.
<b>Oils and dairy free butter</b>	These are high in energy and useful if you are losing weight.
<b>Drinks</b>	Aim for 8-10 glasses of fluids per day. Consider nourishing fluids if you are losing weight.



**Vitamin B12:** It is essential that all vegan diets contain a reliable source of vitamin B12. This can be difficult as vitamin B12 is predominantly found in meat products. Therefore to obtain vitamin B12, vegans need to eat fortified foods or supplements. Fortified foods include alternative milks, vegan spreads, nutritional yeast flakes, yeast extracts and breakfast cereals. You should be eating fortified foods at least twice a day, aiming for 3 µg a day. Alternatively consider taking a Vitamin B12 supplement, 10µg daily or at least 2000µg weekly.

**Calcium:** Ensure that your dairy free alternatives are fortified with calcium. The adult recommendation is 700mg calcium per day. For example, this is the equivalent of: 100g calcium-set tofu (350mg), 200ml calcium-fortified plant milk (240mg) and 125g calcium-fortified soya yoghurt (150mg) daily.

**Vitamin D:** Deficiency is common, especially during the winter months when the sun here in the UK is not strong enough for our skin to synthesise vitamin D. Therefore we are recommended to supplement our dietary intake. Some foods are fortified with vitamin D however this is unlikely to provide sufficient amounts. A supplement of 10µg per day is recommended. Not all vitamin D supplements are vegan friendly, however vitamin D2 is always vegan friendly and lichen-derived vitamin D3. Vitamin D3 is absorbed better, so would be preferable. Check the label to ensure it is vegan-friendly.

**Omega-3:** Vegan sources of omega-3 include walnuts, ground flax (linseed), hemp seeds, chia seeds and soya beans. Oils such as hemp, rapeseed and flaxseed oil provide essential omega-3 fats and are preferable to sunflower oils.

# Adding extra nourishment into your diet

## Meal and snack ideas

### Breakfast ideas

- Porridge - oats with soya milk and a banana (290kcal, 10g protein)  
To fortify this meal with extra kilocalories add a few pieces of vegan friendly chocolate into your oats or grate on top!
- Avocado on toast - wholemeal toast with avocado and an apple on the side (450kcal, 12g protein)  
To fortify this meal with extra kilocalories add some vegan cheese on top of the toast or mix the cheese with the avocado and spread!
- Beans on toast - baked beans, wholemeal toast and vegan margarine (418kcal, 18g protein)  
To fortify this meal with extra kilocalories m some vegan cheese into the beans or sprinkle in some nutritional yeast flakes- be creative!

### Main meal ideas

- Vegan wrap - black beans, avocado, spinach and tomato salsa (560kcal, 26g protein)  
To fortify this meal with extra kilocalories wilt the spinach down in a pan with olive oil and then add to the wrap or try adding some rice into the wrap!





- Quorn chicken rice bowl - quorn chicken, brown rice, black beans, guacamole, salsa and vegan cheese (710kcal, 31g protein)

To fortify this meal with extra kilocalories try adding some soya yoghurt into the mix or as a substitute for vegan mayonnaise to add to the meal alongside the guacamole!

- Quorn burger - 1 Quorn burger patty, burger bun, vegan cheese, sliced tomato, sliced onion and lettuce (440kcal, 17g protein)

To fortify this meal with extra kilocalories add vegan margarine or avocado to the burger bun.

- Vegetable tomato pasta - pasta and tomato and vegetable sauce (311kcal, 11g protein)

To fortify this meal with extra kilocalories try topping this dish with some fresh guacamole or sprinkle some nutritional yeast flakes over the top!

### **Snack ideas**

- Rice cakes, peanut butter and banana (240kcal, 6g protein)
- Hummus and carrot sticks (145kcal, 4g protein)
- Handful of almonds and an orange (185kcal, 8g protein)
- Crisps or equivalent snacks suitable for vegans (around 100kcal, from 2 to 5g protein per packet, or serving)
- Puddings can be a useful way of adding extra calories and protein – the nutritional value varies between each product but there are ready made ones available in the main supermarkets and other specialised shops.

As shown in the meal ideas section, adding extra nourishment to your diet can be easy and quick if you know how. It is important to eat enough during treatment to maintain your energy and bodily health.

**Some ways to add extra energy to your meals and diet are:**

- Add nuts to cereals and pasta dishes
- Spread nut butters onto toast or mix into porridge
- Stir olive oil into savoury foods and soups
- Drizzle olive oil over vegetables
- Snack on dried fruit in between meals

By keeping these things in mind when preparing a meal it allows you to eat more calories without them making you feel fuller.

**Cost of food**

It is important to consider the cost of food when consuming a vegan diet due to the natural tendency to buy more fresh fruit and vegetables. However, don't let this put you off.

**Here are some simple ways to save money when food shopping on a vegan diet:**

- Buy frozen or tinned fruit and vegetables instead of fresh
- Buy fresh fruit and vegetables that are in season
- Look for deals on foods and stock up
- Buy foods in bulk to save money
- Look for supermarkets own brands of items



- Look out for reduced prices on goods
- Make a shopping list
- Don't waste food - make a little extra food at dinner time to have for lunch the next day!

## Managing potential side effects of treatment

### **If you are too tired to cook or eat**

Your illness and treatment can make you feel very tired, but it is vital to keep your nutritional intake at its best.

### **You may find the following tips helpful:**

- If you are finding shopping and cooking tiring, think about using convenience foods - frozen meals, tinned foods and takeaways are good options at this time
- Others may offer to help - let them do your shopping and preparation
- Shop online and have it delivered
- There are companies who deliver frozen ready meals and puddings
- If you know in advance the times you are likely to feel tired, then you could try to plan ahead to help you through these times
- If you have a freezer, prepare food whilst you are feeling active and freeze it for when you are most tired

- You can stock up on convenience foods - keeps foods such as baked beans, tinned fruit, energy bars in your cupboards.
- Consider having nourishing drinks
- If you feel you need more help coping at home with your cooking and eating, tell your doctor, nurse or radiographer

### **Eating when you have a poor appetite**

Your appetite may vary throughout and following treatment, but it is still important to keep eating as much as you can.

#### **Try some of the following tips:**

- Eat your meals slowly, chew the food well and try to relax and enjoy what you eat
- Try to eat when you do feel hungry and make the most of the good days by eating well and treating yourself to your favourite foods
- Eat little amounts as often as possible. If you cannot face a big meal - try to have a small portion of food every two hours during the day
- Try to eat a variety of different foods. You may enjoy foods you wouldn't usually eat
- Tempt your taste buds by making food look as attractive as possible
- Put small portions on your plate and garnish the food with lemon, tomato, parsley - try using a smaller plate



- Keep snacks handy, such as bags of nuts, crisps and dried fruit, to nibble whenever you can
- Sweet or savoury nourishing drinks can be used to replace small meals. Try to have a nourishing drink instead of a cup of tea or coffee

### **Some examples of nourishing drinks are:**

- Hot chocolate made with a non-dairy milk alternative - try adding a few tablespoons of vegan cream and some pieces of your favourite chocolate to the drink to add extra calories!
- Fruit smoothies - blend some of your favourite fruits with non-dairy milk alternative. Try adding some vegan ice cream or yoghurt into it to add extras calories!

### **Coping with dry mouth**

Radiotherapy to the head or neck, some chemotherapy treatments and painkillers can all lead to a dry mouth which can make eating difficult.

### **Try the following tips:**

- Sip cool drinks frequently, especially with meals. Even taking just a few sips at a time can help keep your mouth moist. You may find fizzy drinks refreshing
- Keep your mouth fresh and clean
- Try sucking on ice cubes or lollies
- Eat soft, moist foods. Moisten your food with lots of gravy, sauce, or dairy free custard

- Avoid sticky, chewy and dry foods like bread
- Try sucking on strongly flavoured sweets or mints to keep your mouth moist
- Boiled sweets or chewing gum (check to make sure it is vegan friendly) can help stimulate saliva production
- Sharp flavours such as lemonade may help your mouth produce more saliva – but avoid if your mouth is sore
- Pineapple chunks or juice may be refreshing
- Try dipping bread, crackers and biscuits into your hot drinks or soup to make them softer

### **Coping with a sore mouth**

Radiotherapy and chemotherapy can cause a sore mouth or throat. If you have these problems contact your nurse, doctor or radiographer who can prescribe medication to help. Avoid foods that will irritate or hurt.

#### **The following foods may need to be avoided:**

- Salty or spicy foods
- Curry, chillies, pepper, vinegar
- Acidic fruits and juices such as oranges, grapefruit and tomato
- Bananas can be acidic – be cautious
- Coarse or dry foods such as crisps, toast and dry biscuits
- Alcohol, especially wines and spirits
- Food that is very hot or cold



## Coping with thick saliva

Radiotherapy that includes the mouth area can cause thick saliva or mucous, which may contribute to difficulty swallowing, nausea, vomiting and/or poor oral intake.

- Try warm liquids like soup, broth, cocoa, tea and warm water to help clear your mouth of thick saliva and wash foods down
- Sometimes a fizzy drink can help clear the thickened saliva, be cautious though if you have a sore mouth

## Difficulty swallowing

Radiotherapy to the head or neck, lungs or oesophagus can cause difficulty swallowing.

### **You may find the following suggestions helpful:**

- Try soft, moist foods
- Make sure you eat as nourishing foods as possible
- Aim for five - six small meals or snacks daily
- Have nourishing drinks between meals
- Add sauces, gravy, olive oil, dairy free spreads to make food more moist

If you are only able to swallow fluids, ask your nurse or radiographer to refer you to the dietitian.

## Feeling sick

Some types of chemotherapy and radiotherapy can make you feel sick (nauseous). This is usually only temporary, but it can disrupt your eating.

There are medications that can be prescribed for sickness. Remember to take your medication regularly, as recommended, to prevent sickness from developing.

### **If you are feeling sick:**

- Eat little and often, rather than just at mealtimes
- Eat and drink slowly
- If the smell of cooking makes you feel sick, try eating cold meals or convenience foods
- Open windows when cooking or use an extraction fan to remove cooking smells - if possible ask someone else to do the cooking
- Try eating dry foods, such as toast, crackers, crisps, plain bagels, toasted breakfast muffins, dry cereal
- Foods or drinks containing ginger can help reduce feelings of nausea - you can use crystallised ginger, ginger tea or ginger beer
- Sipping a fizzy drink can be helpful - try mineral water, lemonade or soda water, sip slowly through a straw
- Try having drinks between meals rather than with your food

### **Taste changes**

Your illness or the treatment can affect your sense of taste so that food loses its flavour or tastes differently.





### **The following advice may be helpful:**

- Eat foods that you like the taste of and ignore those that do not appeal to you - however, do try them again as your taste may have returned
- Sharp tasting foods like fresh fruit, fruit juice and boiled sweets e.g. lemon barley and strong mints may be refreshing
- Choose foods that are highly flavoured - try combining different temperature foods, e.g. hot fruit pie with cold vegan ice cream
- Try lemon, green or herbal tea
- Try herbs like thyme, oregano, rosemary, basil and mint to add flavour to your cooking
- Flavour your food with chutneys, relishes or ketchup
- If you have a metallic taste, try gargling with lemon juice in water before eating
- Avoid canned food or food in metal containers
- Ensure good mouthcare
- If you are struggling with sweet flavours, then try adding lemon juice or diluting drinks with soda or mineral water. Adding spices such as ginger, nutmeg, or cinnamon to desserts and puddings may also reduce sweetness; try sharper fruit flavours – grapefruit, rhubarb
- Try new foods
- Sip drinks through a straw, this may avoid some of the taste buds and cut down the unpleasant taste

## Gas, bloating or cramping

Certain treatments may cause gas, bloating or cramping. There are a number of medications that can help these symptoms, so speak with your nurse, radiographer or doctor.

### **Here are some ideas that may help:**

- Eat and drink slowly - take small mouthfuls and chew well
- Avoid food that you think gives you wind; for example beans, pickles and fizzy drinks
- Avoid drinking through a straw
- Try peppermint tea
- Gentle exercise, especially walking can bring some relief
- If the pain becomes severe or continues, tell your doctor, nurse or radiographer

## Heartburn and reflux

This causes a burning feeling in your throat and upper stomach and can make your mouth taste sour. It is very common in cancer treatments. There are medications that can help, so ask your nurse, doctor or radiographer.

### **The following tips may also help:**

- Acidic citrus fruits and spicy foods may make the problem worse
- Some people find that avoiding foods high in fat may help
- Don't drink immediately before eating and wait 30 minutes after eating to have a drink



- Try not to lie down immediately after eating
- Limit your intake of alcohol, fizzy drinks, coffee and tea
- Sit up to eat, ideally at a table to let gravity help

## Constipation

Eating very little or not drinking enough fluids can make you become constipated. This can be made worse by some treatments and medications. Medications can be prescribed to help with this. Light exercise can also help to keep your bowels in working order.

## Diarrhoea

Diarrhoea may be due to illness, treatment or medication. Talk to your doctor, nurse or radiographer who will try to determine the reason for the diarrhoea and can give you any necessary advice and/or medication.

### **The following suggestions may help:**

- Drink plenty of fluids
- Look out for symptoms of dehydration, such as passing urine less often and passing small amounts of dark coloured urine
- Eat small frequent meals

## Additional Information

- The Vegan Society
- British Dietetic Association
- NHS Website
- Macmillan Cancer Support

## How we produce our information

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We rely on a number of sources to gather evidence for our information. All of our information is in line with accepted national or international guidelines where possible. Where no guidelines exist, we rely on other reliable sources such as systematic reviews, published clinical trials data or a consensus review of experts. We also use medical textbooks, journals and government publications.

References for this leaflet can be obtained by telephoning 0151 556 5570.

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