

EAT WELL DURING CXNCER

Helping you to cope with common side-effects of cancer and cancer treatment

Who is this booklet for?

This booklet is for people living with cancer and those having cancer treatment, who want to know more about how to cope with the common side-effects, but also want to follow as healthy a diet and lifestyle as possible.

This is a general guide and is not suitable for people who are eating very little, have lost a lot of weight unintentionally or are receiving palliative care, as they will need specialist information and advice.

If you have completed your treatment or feel able to eat normally, our website wcrf-uk.org has lots of useful information about healthy eating and being active that may be more suitable for you.

If you follow a special diet for another medical condition, such as heart disease, diabetes or renal failure, or have a colostomy or ileostomy, this booklet may not be suitable for you. Talk to your doctor or dietitian about safe changes to make to your diet.

If you are really struggling with eating and you're not already seeing a dietitian, then ask your doctor to refer you to one.





About us

World Cancer Research Fund is the leading UK charity dedicated to the prevention of cancer. Our mission is to champion the latest and most authoritative scientific research from around the world on cancer prevention and survival through diet, weight and physical activity so that we can help people make informed lifestyle choices to protect themselves against cancer.

The cornerstone of our research programme is our Continuous Update Project (CUP). It's the world's largest source of scientific research on cancer prevention and survival through diet, weight and physical activity. A panel of world-renowned independent experts review the scientific research to develop Cancer Prevention Recommendations based on the best evidence. Find out more: wcrf-uk.org/our-research

This booklet was written with the support of dietitians from the British Dietetic Association (BDA)'s Oncology Specialist Group to ensure the information is based on the most up-to-date scientific evidence and practical expert advice, and it has been endorsed by the BDA. Our nutritionists have also created recipes to help you put this advice into practice.



Dear reader.

Thank you for choosing this World Cancer Research Fund booklet. If you're living with cancer or having cancer treatment, you might not be able to eat and drink what you are used to, or as much. This can be difficult, especially if you've always enjoyed your food and now find mealtimes challenging.

On top of the symptoms caused by cancer itself, treatments such as chemotherapy, radiotherapy and surgery can cause side-effects that make it more difficult to eat normally and absorb what you need from food.

We wrote this booklet to help you cope with the common side-effects while also eating the most nutritious and healthy foods possible and keeping active.

Eating well generally means eating a diet rich in wholegrains, vegetables, fruit and pulses, with lean meat, fish and lower fat dairy. It also means limiting foods and drinks that are high in added sugar, salt or saturated fat such as butter, cream and cheese. This includes highly processed foods and drinks such as biscuits, crisps, fast foods, ice cream and sugar-sweetened drinks (like cola).

In line with our Cancer Prevention Recommendations, we also advise limiting the amount of red meat you eat, and avoiding processed meats (like ham and bacon) and alcoholic drinks.

If you're having problems eating, or if you're losing weight, you may need to make some changes to your diet for a while. Everyone is different, so not every piece of advice in this booklet will help everyone, but try experimenting to see what is helpful for you.

It is important to let your doctor or health professional know about any symptoms or side-effects you're experiencing. Alongside advice from your doctor, we hope the tips and recipes in this booklet will help you get the balance right between coping with the side-effects you're experiencing, feeling better in yourself, and eating well and enjoying your food.

I hope you find this booklet helpful.

Kind regards,

Dr Kate Allen
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Contents

Common questions answered 8 Loss of appetite 10 Weight loss 22 Diarrhoea 24 Constipation 25 Wind 32 Nausea (feeling sick) 34 Mouth problems 40 Taste changes 42 Reducing your risk of infection 44 Fatigue (extreme tiredness) 46 Keeping active 46 Weight gain 48 Further advice and contacts

Specialised recipes

High in calories and protein

- 16 Salmon with a nut and seed crust
- 18 Chicken fajitas
- 20 Banana and peanut butter flapjacks

High in fibre

- 26 Minestrone soup
- 28 Vegetable paella
- 30 Wholemeal bread and butter pudding

Soothing for sore mouths

- 36 Gazpacho
- 38 Filling fruit smoothie

Common questions answered

Do I need to follow a 'fad' diet?

'Fad' diets (diets that are very restrictive, include few foods or focus on unusual combinations of foods) that claim to help you fight cancer can seem very appealing and get a lot of media attention. However, there's no scientific evidence that following any type of diet can cure cancer or replace cancer treatments. Also, following a 'fad' diet while you're having treatment can have risks, such as not providing your body with all the nutrients it needs.

If I follow the recommendations in this booklet, do I still need to take my medication?

There is no scientific evidence that changes to your diet or lifestyle can cure cancer, so it is important to continue taking prescribed medication as instructed by your doctor. If you feel you no longer need a certain medication, do make sure you discuss this with your doctor before you stop taking it.

As with all medication, it is important to ask your doctor or a pharmacist, or to read the patient information, to check if it interacts with any foods or drinks.

What about supplements and natural remedies?

We advise people to get all their nutrients from their food and drink, where possible. If you aren't able to eat as normal, your doctor or dietitian may prescribe supplements for you. It is important that you take these as suggested. However, if you are considering taking other supplements or homeopathic, natural or herbal remedies that haven't been prescribed for you, it is important to discuss this with your doctor before you start taking them to check they are safe for you.

Loss of appetite

There are lots of reasons why you might lose your appetite when you have cancer. It could be the cancer itself, your treatment, or other side-effects like tiredness, feeling sick or taste changes that are making you feel less hungry. Feeling anxious can also play a part – worrying about your health can make it hard to think about food.

What can help?

Mealtimes

- ▶ Everyone is different, so try experimenting to see what you can tolerate. For some people, big meals might seem overwhelming, so try to eat little and often. You could try having five or six small meals or snacks a day, served on small plates as this may be less off-putting. If you find it difficult to eat this often, you could try swapping snacks for high-calorie (high-energy) drinks, like smoothies (see pages 38–39 for our filling fruit smoothie recipe).
- ▶ If you find drinks make you feel full, it might be best to avoid drinking at mealtimes to allow you to eat as much as possible.
- ► Try to make meal and snack times as relaxing as possible. This will depend on what works for you perhaps a quiet room with no distraction makes you feel more comfortable, or you may prefer to have friends and family around you, or have some music on.
- ► It's best to try to sit upright while you're eating and to take your time with your meal – chewing and swallowing slowly. If you feel sick or full, you could try getting some fresh air and eating again later.
- ► Every little counts be positive about what you have managed to eat rather than focusing on what's left.
- Make your food look as appealing as possible, for example by adding a garnish of herbs or wedge of lemon.



Choosing what to eat

- It can be hard to know what you actually want to eat when you don't have an appetite, so keep a variety of ready-to-eat snacks to hand (see page 15 for some snack ideas) or ask your family to prepare meals or foods that you liked in the past these can be portioned up into small meals and frozen so they are quickly available when you feel like trying them.
- Eat what you fancy, when you fancy, and try to eat a little more when your appetite is at its best.
- Some people find strong flavours can help stimulate their appetite, such as foods and drinks that are spicy, sweet or bitter (such as chicory, black coffee and tonic water).

Looking after yourself

- If you smoke, try to cut down as much as possible, as smoking can reduce your appetite. Ask your doctor for support if you want to stop smoking.
- Gentle exercise, like going for a walk, could help to increase your appetite. See pages 46-47 for more about the benefits of keeping active.
- ▶ It can help to talk to family and friends about your change in appetite and let them know what will help you, whether that's being able to graze on food throughout the day or having quiet mealtimes.
- ▶ If you're feeling anxious or worried, try to get some support from your doctor, another health professional or someone else you trust. See pages 49-50 for helpful contacts.

If you're losing weight

Loss of appetite can mean that you start to lose weight. If this is happening to you, you can also **try the tips in the weight loss section on pages 10–15.**

If you've tried to make changes but keep losing weight or cannot put any weight back on, ask your dietitian or doctor for more support. They may be able to prescribe medication to help increase your appetite, as well as high-energy drinks (liquid food supplements) to add extra calories to what you are able to eat.

Weight loss

Losing weight is a common side-effect of cancer. Cancer itself can cause changes to your appetite (see pages 8–9) or to the way your body uses nutrients from food and drink. Cancer treatments can also make it harder for your body to absorb what it needs from your food, and make it more difficult for you to eat in the first place – all of which can lead to weight loss.

What can help?

The best way to slow down or stop weight loss is to make sure each mouthful you eat or drink gives you as many calories (energy) as possible.

When you have cancer, you may also lose muscle, so it's also important to choose high-protein foods that can help your body build muscle and repair tissue.

This section looks at how you can do this in the healthiest way possible by opting for foods that are not only high in calories and protein, but are also beneficial for long-term health.

Please note, if your weight loss is rapid or severe, you should prioritise slowing down or stopping weight loss. This may mean eating high-calorie foods that aren't generally considered to be healthy if they're what appeal to you or are all you can tolerate.

Which foods to choose?

Foods that are higher in fat have more calories per mouthful.
However, it is still best to opt for foods containing healthier fats, such as oily fish, seeds and avocados. It is also best to avoid foods high in added sugar and salt, highly processed foods, such as biscuits, chocolate, fast foods like burgers, chips and fried chicken, and sugar-sweetened drinks like cola.



Guidance on...

Dairy foods

Dairy foods, such as milk, plain yoghurt and cheese, are a good source of calories, protein and important micronutrients like calcium, meaning they can contribute to a healthy diet. However, some dairy foods are particularly high in saturated fats, so to keep your intake of these less healthy fats down, it's best to avoid butter, cream and ice cream. Swapping butter for oil or oil-based spreads would help to reduce the amount of saturated fat you're eating while still keeping the amount of calories high.

It is important to note that if you are still losing weight, calories and protein intake should be your priority, so you may want to include some of these higher fat dairy foods in your diet for the time being.

Red and processed meat

Red meat, such as beef, pork and lamb, is a good source of protein and important micronutrients like iron so can contribute to a healthy diet. However, our research has shown that eating processed meat or too much red meat increases cancer risk. For this reason, we recommend eating moderate amounts of red meat and avoiding processed meat, such as ham, bacon, salami and hot dogs.

Fruit and veg

Fruit and vegetables are an important source of vitamins and minerals, which are good for our overall health. However, they tend to be quite low in calories and high in fibre, which means they can fill us up on few calories. It is important that you keep eating fruit and vegetables, but try to opt for higher calorie ones such as sweet potatoes, squashes, root vegetables (such as parsnips), avocados, peas, sweetcorn, bananas and dried fruit.



Have a look at our shopping list for the foods that we recommend >>

Your shopping list

Food	High- calorie	High- protein
Red meat, eg beef, pork, lamb – eat in moderation	✓	✓
Poultry, eg chicken, turkey		1
Meat alternatives, eg tofu, soya		1
Non-oily fish, eg cod, haddock		1
Oily fish, eg salmon, mackerel	√	1
Eggs		✓
Pulses (beans and lentils)		1
 Houmous and tahini 	✓	1
Nuts, seeds and nut butter	/	1
Full-fat and evaporated milk	✓	1
Skimmed and semi-skimmed milk		1
Skimmed milk powder		1
Soya milk		1
Greek and natural yoghurt		1
Cottage cheese		1
Creme fraiche	/	
Full-fat cheese	√	1
Avocado	✓	
Vegetable oils for cooking or salad dressings	1	
Vegetable oil-based spreads	1	
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'Boosting' yur food

Here are a few ideas for increasing the calories and protein in your everyday food.

If you're having... Puddings or breakfast cereals

Add...

- Nuts or seeds
- Dried fruit
- Banana
- Whole milk or fortified milk (see next page)
- Greek or natural yoghurt

If you're having... Sandwiches, toast or crackers

Add...

- A thick layer of cream cheese, cottage cheese, nut butter or houmous
- A filling of sliced avocado and tuna or chicken

If you're having... Vegetables, mashed potatoes, heans or sauces

Add...

- Oil
- Whole milk or fortified milk (see next page)
- Oil-based spread
- Cheese
- Egg (hard-boiled or added when making savoury sauces)

If you're having... Salads

Add...

- Avocado slices, nuts, seeds and pulses
- Oil-based dressings
- Oily fish, cooked lean meat or poultry
- **▶** Houmous
- New potatoes
- Hard-boiled egg
- A serving of bread (ideally wholemeal) with oil-based spread



If you're having... Casseroles, meat dishes or soups

Add...

- Lentils or beans
- Rice, noodles or pasta (ideally brown or wholewheat)
- More lean meat, fish or meat alternatives like tofu
- More oil when cooking
- Greek yoghurt or creme fraiche before serving
- A serving of bread (ideally wholemeal) or potatoes with oil-based spread

Mealtimes

- Try to eat little and often you don't have to stick to three meals a day. You could have a snack or small meal every two hours or so, including one before bed.
- ► Keep high-calorie snacks and easy-to-prepare foods to hand at home and when you're out.
- Instead of steaming or baking your food, you could also increase the calories by cooking with oil, such as olive or rapeseed oil.
- ➤ To get as many calories as you can from every mouthful, try to avoid clear soups, eating lots of fruit and vegetables or having a large drink just before or during mealtimes. These can fill you up without giving you many calories.



High-calorie drinks

- ▶ Fortified milk: add 2–4 tablespoons of skimmed milk powder to a pint (570ml) of whole milk. Keep it in the fridge for up to two days and use in hot and cold drinks, smoothies, on cereal and for cooking. This adds calories and protein without adding much volume.
- ➤ Smoothies: make a smoothie by blending together fortified milk, yoghurt, fresh fruit like banana, mango or berries nuts, nut butter, seeds or avocado (see pages 38–39 for our filling fruit smoothie recipe).

Keep track of your weight. If you've made changes to your diet but keep losing weight or cannot put on any weight, ask your dietitian or doctor for more support.



Keeping active

Even if you're losing weight, it's a good idea to keep active.

Being active, especially doing strengthening exercises, could help stimulate muscle growth and help prevent you losing muscle and strength.

See pages 46-47 for more information and ideas for keeping active.





Salmon with a nut and seed crust

Ingredients

2 salmon fillets

2 medium potatoes, suitable for mashing, peeled and cubed

2 tbsp whole milk

1 tbsp rapeseed oil

160g frozen peas, cooked as instructed

Nut and seed crust

30g chopped hazelnuts

30g oats

10g pumpkin seeds

4 tsp rapeseed oil

Small handful fresh coriander

½ lime, zest only

Freshly ground black pepper, to taste

Method

- 1 Preheat the oven to 180°C/Fan 160°C.
- 2 Add all the ingredients for the crust to a blender, and pulse for about a minute.
- 3 Place the salmon, skin-side-down, on a foil-lined baking tray. Spoon half the crust on top of each fillet and gently pat it down.
- 4 Place the salmon in the oven and bake for 20 minutes.
- 5 While the salmon cooks, put the potatoes in a large saucepan and cover with cold water. Place over a high heat and bring to boil. Reduce the heat, cover and allow to simmer for about 15 minutes until cooked.
- 6 Remove the potatoes from the heat and drain carefully. Add the milk and oil, then mash until smooth.
- 7 Transfer the cooked salmon, mashed potato and cooked peas onto two serving plates and serve.

Nutrition information (per portion)



SERVES: 2



CALORIES: 841



FAT: 46g



SALT: 0.3g



5 A DAY: 1





Chicken fajitas

Ingredients

- 1 tbsp rapeseed oil
- 1 medium onion, sliced
- 1 pepper, deseeded and sliced
- 480g chicken breast, diced
- 4 wholemeal wraps
- 2 tbsp natural yoghurt

Guacamole

- 1-2 tsp lime juice
- 1 ripe avocado, peeled and diced

Small handful fresh coriander, finely chopped (optional)

Seasoning

- 1 level tbsp cornflour
- 1⁄2−1 tsp cayenne pepper
- ½ tsp cumin
- ½ tsp garlic granules
- 1/4-1/2 tsp smoked paprika
- 1/4 tsp cinnamon

Method

- 1 Add the lime juice and avocado to a bowl, then mash thoroughly. Stir in the coriander, cover and refrigerate until needed.
- 2 Warm the oil in a large, non-stick frying pan over a medium heat. Add the onion and pepper; and cook for 3–4 minutes until they start to soften but not brown.
- 3 Add the chicken to the pan and cook for a further 4–5 minutes until the chicken is browned on all sides.
- 4 Mix together all the seasoning ingredients, and sprinkle over the chicken and vegetables you may not need to use all of the seasoning, but the rest will keep for another time. Stir for 2 minutes to cook the spices and ensure everything is coated in them.
- 5 Warm the wraps in the oven (about 100°C) for about 2–3 minutes (optional). Place each wrap on a plate and spoon a quarter of the chicken and vegetable mix onto each, followed by a quarter of the guacamole and half a tablespoon of yoghurt. Fold the wrap and enjoy.

Nutrition information (per portion)



SERVES: 4



CALORIES: 495



FAT: 18.5g



SALT: 1.2g



5 A DAY: 1.5



Banana and peanut butter flapjacks

Ingredients

3 ripe bananas

200g oats

50g dried fruit, chopped into small pieces if necessary

60g seeds

2 tbsp smooth peanut butter (ideally a brand that contains no added salt and sugar)

2 tbsp sunflower spread

1 tbsp honey

1 tsp cinnamon

Method

- 1 Preheat the oven to 180°C/Fan 160°C. Line a baking tray with baking parchment.
- 2 In a large bowl, mash the bananas into a smooth paste. Add the oats, dried fruit and seeds; and mix thoroughly.
- 3 Warm the peanut butter, sunflower spread, honey and cinnamon in a saucepan over a low heat for about 2 minutes or until the spread has melted, stirring continuously.
- 4 Pour the melted spread mixture over the banana and oats; and mix thoroughly.
- 5 Transfer the mixture into the lined baking tray and spread to an even thickness.
- 6 Bake in the oven for 35–40 minutes until cooked through and golden brown.
- 7 Carefully turn out onto a cooling rack and allow to cool before cutting into 12 equal-sized squares.
- 8 Serve or store in a sealed container eat within 5 days. Alternatively, freeze and use within 3 months.

TIP: Peanut butter can be swapped for other types of nut butter, such as almond butter, if preferred.

Nutrition information (per flapjack)

Ω

MAKES: 12

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CALORIES: 169

6

FAT: 7.1g



SALT: 0.1g



5 A DAY: less than 0.5



Diarrhoea

Diarrhoea (frequent, loose or watery stools) can be a side-effect of cancer treatments such as chemotherapy, radiotherapy, targeted therapies and surgery. Infections and some medications, such as antibiotics, can also cause diarrhoea.

What can help?

If you have diarrhoea, it is important to seek advice from your doctor, as there are many causes that require different types of treatment. If you're prescribed medication to help with diarrhoea, it's important you take it as directed.

If you continue to have diarrhoea after your treatment has finished or beyond the time you were told you might experience problems, do seek further advice from your doctor.

Replacing lost fluids

Regardless of the cause, diarrhoea can make you dehydrated, so aim to have plenty of hot and cold drinks to replace any fluids you might be losing. As a guide, aim to drink at least two litres (3.5 pints) a day – this is at least 10–14 glasses. As well as sipping on water throughout the day, you could try drinking:

- Sugar-free fruit cordials and squashes, and diluted fruit juice
- Clear soups, Oxo or Bovril
- Unsweetened coffee, tea, herbal tea and fruit tea
- Milk* or milk alternatives, such as soya, rice, almond or hazelnut milk
- * Some people may find milk can make their diarrhoea worse. If this is the case for you, you could try lactose-free milk or milk alternatives.



Keep eating

Try not to restrict the amount you're eating, to make sure you don't miss out on important nutrients. It may be best to eat little and often, rather than have three main meals, to avoid large amounts passing through your bowel. You could also try chewing and swallowing your food slowly. If you find that diarrhoea is disturbing your sleep, try to avoid eating close to bedtime.

Foods to avoid

Some people find certain foods can make their diarrhoea worse, so you might want to consider whether these foods affect you. If they do, try avoiding them or reducing the amount you eat:

- Greasy, fatty and fried foods
- Caffeine, such as in tea, coffee, cola and chocolate
- Spicy foods
- Alcohol
- Nuts and seeds

Can a low-fibre diet help?

Until recently, people with diarrhoea were advised to reduce the amount of fibre in their diet. However, for many causes of diarrhoea, including chemotherapy and radiotherapy, there is actually no evidence that this will have any benefit. This is good news as it means that people can often continue to eat a normal, healthy, balanced diet containing adequate amounts of fibre-containing foods, such as vegetables, fruit, pulses (like beans and lentils) and wholegrain foods.





If you have really bad diarrhoea, speak to your doctor or a pharmacist, as you might need to replace lost salts with salty foods or a rehydrating solution such as Dioralyte.

Constipation

Constipation (not being able to pass stools regularly) can often be very uncomfortable and may make you feel full and sick.

It can be caused by:

- ▶ Some cancer treatments such as chemotherapy, biological therapy and surgery to the stomach or bowel
- Anti-sickness and pain medications
- Not eating enough fibre
- Not drinking enough fluid
- Not doing enough physical activity

The advice below may not be appropriate if constipation is caused by a tumour obstructing the stomach or bowel. If you are concerned, speak to your doctor or dietitian before making any changes to your diet.

What can help?

Eating a high-fibre diet

Fibre helps to keep our bowel movements regular. Eating more high-fibre food may help to relieve constipation. Have a look at our shopping list for high-fibre food ideas.

Drinking enough fluid

It's important to drink plenty of fluid, particularly when eating more fibre, as not drinking enough can make constipation worse. As a guide, aim to drink at least two litres (3.5 pints) a day – this is at least 10–14 glasses. However, if you aren't able to eat as much as you usually would, it may be best to discuss how much you should drink with your doctor or dietitian.

Some people find having a warm drink when they wake up helps get their bowel moving.

Your shopping list – high-fibre foods

- Wholegrain, granary or wholemeal bread
- Fruit and veg (with edible skin or peel on)
- Oats
- Wholegrain breakfast cereal
- Brown rice and pasta
- Dried fruit
- Nuts and seeds, like linseeds
- Pulses, like beans, peas and lentils
- Rye, digestive or bran biscuits and crackers

Wind

Passing wind is a normal bodily function – on average, people pass wind about 15–25 times a day. If you find you're passing wind more often than usual, this may be caused by:

- Pelvic radiotherapy
- Bowel surgery
- Constipation
- Certain medications
- Your cancer stopping you from digesting and absorbing your food properly (malabsorption)

Keeping active

Keep as active as possible and, if you can, avoid spending too much time sitting or lying down.

Some regular gentle exercise, such as going for a short walk every day, can help keep your bowel movements regular.

See pages 46-47 for more ideas about keeping active.

If things don't seem to be improving, see your doctor.
They may be able to prescribe laxatives. If you have bowel cancer, speak to your dietitian or doctor for advice before making any changes to your diet, as a high-fibre diet can make symptoms worse.

What can help?

Foods to avoid

Some people find that these foods can cause wind so you might want to consider whether these foods affect you. If they do, try avoiding them or reducing the amount you eat:

- Beans, cabbage, brussels sprouts, sweetcorn, cauliflower, onions
- Pickles
- Fizzy drinks
- Some artificial sweeteners, including mannitol, sorbitol and xylitol

Other tips

- Try to eat little and often. Chewing your food well and sipping slowly may also help.
- You could try common remedies such as peppermint water, capsules or tea, fennel tea and baby's gripewater.
- Gentle exercise could help to get your bowel moving. See pages 46-47 for more ideas about keeping active. The advice on managing constipation might also help (see previous page).

Tell your doctor if passing wind becomes painful or if symptoms don't get better.





Minestrone soup

Ingredients

100g wholewheat spaghetti

Spray oil

1 medium onion

2 courgettes, diced

2 large carrots, washed and diced

1 x 400g can chopped tomatoes

1 reduced-salt vegetable stock cube, dissolved into 500ml hot water

½ tsp dried, mixed herbs

Freshly ground black pepper, to taste

1 x 410g can cannellini beans, drained

100g kale or savoy cabbage, finely shredded

Method

- 1 Cook the pasta as instructed, until al dente (cooked but still has a bite). Drain, rinse in cold water and set aside until needed.
- 2 Coat a large non-stick saucepan in spray oil and place over a medium heat to warm. Add the onion and cook for 3–4 minutes until it begins to soften. Then add the courgette and carrot; and cook for a further 3 minutes, stirring continuously.
- 3 Add the remaining ingredients and bring to the boil. Reduce the temperature, cover and simmer gently for 10 minutes.
- 4 Add the pasta and continue cooking for 2–3 minutes or until the vegetables are tender. Remove from the heat and serve.

TIP: If you're losing weight or struggling to maintain your weight, you can add calories to this dish by using more oil when cooking the vegetables and by stirring in creme fraiche before serving.

Nutrition information (per portion)

Ω

SERVES: 4

CALORIES: 196



FAT: 3.1g



SALT: 0.9g



5 A DAY: 4.5



Vegetable paella

Ingredients

- 2 tbsp rapeseed oil
- 1 tsp cumin seeds
- 1 medium onion, diced
- 2 cloves garlic, crushed
- 240g brown basmati rice
- 1 x 400g can chickpeas, drained
- 1 reduced-salt vegetable stock cube, dissolved into 750ml hot water
- 1/4 tsp saffron threads (alternatively, use 1/4 tsp turmeric or smoked paprika)
- 300g green veg, such as green beans, peas, broad beans, asparagus or courgette, trimmed and cut into bite-sized pieces
- 1 red pepper, cut into thin strips
- ½ lemon, cut into 4 wedges

Method

- (1) Warm the oil in a large frying pan or paella dish over a medium heat. Then add the cumin seeds to flavour the oil. Add the onion and garlic and stir for about 1 minute.
- 2 Add the rice and chickpeas to the pan, and then add the stock and saffron (or turmeric or paprika). Mix thoroughly. Make sure all the rice and chickpeas are covered with stock.
- 3 Bring to the boil, and then reduce the heat and cover. Simmer for 30–35 minutes, stirring occasionally. Add more water if required.
- 4 Add the green vegetables and cook for a further 5 minutes.
- 5 Add the pepper, mix thoroughly, replace the cover and cook for a further 3–4 minutes, or until all the liquid has been absorbed and the rice is tender.
- 6 Serve with a wedge of lemon.

TIP: For extra protein, add diced lean meat or poultry, or prawns to this dish. If using raw meat or prawns, add with the green vegetables. If they're already cooked, add at step 5.

Nutrition information (per portion)

Ω

SERVES: 4

lili

CALORIES: 396

0

FAT: 9g

SALT: 0.3g

6

5 A DAY: 2.5







Wholemeal bread and butter pudding

Ingredients

20g sunflower spread, or similar

6 small slices wholemeal bread (from a 400g loaf), lightly toasted

75g dried fruit, chopped if necessary

1 large egg and 1 large egg yolk

2 tsp caster sugar

400ml skimmed milk

1 tsp vanilla extract (no alcohol)

½ tsp ground cinnamon

Fresh nutmeg, grated (or ¼ tsp ground nutmeg)

Method

- 1 Preheat the oven to 170°C/Fan 150°C.
- 2 Spread a thin layer of sunflower spread on one side of each slice of bread and then cut each slice in half. Arrange layers of bread, spread side up, and dried fruit in an ovenproof dish.
- 3 To make the custard, lightly beat the egg and egg yolk in a mixing bowl, then add the sugar, milk and vanilla extract.
- 4 Transfer the custard into a saucepan and set over a medium heat. Stir continuously until the custard starts to thicken it should just coat the back of your spoon. Then stir in the cinnamon and nutmeg. Pour the custard over the bread and dried fruit, and leave to soak for 5–10 minutes.
- 5 Bake in the oven for about 30 minutes until the edges of the bread are golden and the custard starts to set.
- 6 Serve immediately or allow to cool before covering and refrigerating eat within 3 days.

TIP: To add calories, use fortified whole milk (see page 14) and add 1 tablespoon of flaked almonds with the dried fruit.

Nutrition information (per portion)



SERVES: 4



SALT: 0.7g



CALORIES: 256



5 A DAY: 0



FAT: 6.9g

Nausea (feeling sick)

Feeling and being sick can be a symptom of cancer or a side-effect of treatments such as chemotherapy, radiotherapy, biological therapies or hormone therapies. Some medications such as pain medication and bisphosphonates (medication that slows down or prevents bone damage) can also cause sickness, as can the other side-effects of cancer treatment such as constipation. It is important to discuss this with your doctor as they can prescribe anti-sickness medication, which should be taken as prescribed and preferably before meals to ensure that it's working when you eat.

What can help?

Choosing what to eat

- Everyone is different, so try experimenting to see what you can tolerate.
- ➤ Small, light meals or snacks, eaten often, might be easier than large meals. If possible, avoid having an empty stomach as this can make you feel sick too. Try nibbling on dry foods, like toast or crackers, especially first thing in the morning.
- Some people find they only want bland food, such as potato, rice and pasta, whereas others prefer salty things like Marmite, soup, salty crackers, popcorn or nuts. Start with foods you can tolerate and gradually build up to a more varied diet if you start feeling better.

- Some people find that food or drink containing ginger or peppermint can help settle their stomach.
- If the smell of cooking makes you feel sick, opt for cold foods and snacks, or frozen food that you can reheat quickly (make sure it's cooked properly). It's fine to use convenience foods, cans or packets if that's easier. You could also ask friends or family to cook meals while you're in another room. If they cook you something but you don't manage to eat it, you could put it in the fridge or freezer for later.



Drinking enough fluid

It is important to avoid becoming dehydrated, especially if you've actually been sick. Ice cold, fizzy drinks, such as sparkling mineral water or soda water, might help. Some people also find that milk helps to settle their stomach. It's best to sip your drinks slowly and to have drinks before or after your meals, rather than while you're eating.

Foods to avoid

These foods and drinks can make sickness worse, so you might want to see if avoiding them helps:

- Greasy, fatty and fried foods
- Spicy food
- ▶ Caffeinated drinks, such as tea, coffee and cola
- Alcohol

Mealtimes

- ▶ If strong smells make you feel nauseous, try eating in a room where there's lots of fresh air and away from the smell of cooking or other strong smells such as flowers.
- Anxiety can make nausea worse, so try to make yourself as comfortable and relaxed as possible. Wearing loose clothing might also help.
- ► Try to sit upright while you're eating and for a while after – if possible, don't lie down for two hours after eating. Also, try to avoid doing anything too active straight after eating.

If you have experienced severe vomiting and can't keep any food or drink down, tell your doctor. They can prescribe anti-sickness medication for you.



Mouth problems

You might experience mouth problems, particularly during and after chemotherapy, radiotherapy to the head and neck, or if you have cancer of the mouth or throat. The good news is that these problems are often temporary.

Some of the most common mouth problems are:

- Soreness and ulcers in your mouth and throat
- Mouth infections, such as thrush
- Dry mouth and lack of saliva
- Tooth problems and bleeding gums
- Difficulty swallowing and chewing
- Bad breath
- ► Thick, sticky saliva

What can help?

Looking after your mouth, teeth and dentures

- Try to keep your mouth as clean as possible. This should help your mouth feel more fresh and comfortable, and may improve the taste of food.
- Remember to brush your teeth regularly. If your mouth and gums are sore, it may be best to use a soft-bristled toothbrush.
- Visit your dentist or oral hygienist regularly to make sure that there aren't any problems with your teeth or gums.
- Use an alcohol-free mouthwash. Your doctor may also prescribe a special mouthwash.

If you wear dentures, clean them regularly and try leaving them out of your mouth for as long as possible, to stop them irritating your gums.

Soothing your mouth

If you have a dry mouth, sucking on sugar-free boiled sweets or chewing sugar-free gum can help stimulate saliva and keep your mouth moist. It is important to note that excessive consumption of some sweeteners used in sugar-free sweets and gum can have a laxative effect.

If you smoke, try to give up as smoking irritates the mouth and slows down healing. If you have a sore mouth, cold foods and drinks, such as fruit juice-based ice lollies, yoghurt and frozen yoghurt, smoothies, sugar-free jellies, gazpacho (see our recipe on pages 36–37) and crushed ice can be very soothing.

Sipping drinks throughout the day will keep your mouth feeling fresh and help prevent you from becoming dehydrated.

Avoiding certain foods

While you have a sore mouth, try to avoid any foods or drinks that might irritate your mouth or that are hard to swallow, such as:

- Rough, dry, crunchy or very chewy foods like hard breakfast cereals, crusty bread, nuts, raw vegetables, dry biscuits and tough meat.
- Very hot foods and drinks.
- Sharp-tasting, salty and spicy foods like pickles, vinegar, garlic, raw onion and chilli.
- Food that sticks to the roof of your mouth like pastry or peanut butter.
- Acidic foods and drinks like citrus fruits or pineapple.
- Alcohol, especially spirits and wine.

If you've lost weight, use our tips and recipes on pages 10-21 to help you get the most out of every mouthful.

Choosing softer foods

Adapt your favourite foods to make them as soft and moist as possible. This will make them easier to chew and swallow, and less likely to irritate your mouth. Try these tips:

- Add extra sauce and gravy to your meals.
- Slow-cook lean meat and vegetables in casseroles and stews to make them soft.
- If you're having a pudding, serve it with custard or yoghurt.
- For breakfast, have porridge, yoghurt with stewed fruit or mashed banana, soft cereals such as Weetabix with lots of milk, or a smoothie (see pages 38–39 for our filling fruit smoothie recipe).
- For lunch, try cutting the crusts off your sandwiches or have smooth soups.

Mashing, blending or liquidising your food can make it easier to eat – for example, blending casseroles or curries to make thick soups, pureeing vegetables and fruit, and mashing potatoes.

Tell your doctor if you're experiencing any mouth problems. They may be able to prescribe pain medication, special mouthwashes or gels.



Gazpacho

Ingredients

- 2 x 400g can plum tomatoes
- 1–2 cloves garlic, crushed
- 1 medium onion, diced
- 1 green pepper, deseeded and diced
- 1 red pepper, deseeded and diced
- 1 medium cucumber, peeled and diced
- 1/4 tsp cumin
- 6 tbsp extra virgin olive oil
- 100g wholemeal bread, toasted, soaked in water for 5 minutes
- 1–2 tbsp red wine vinegar or sherry vinegar

Freshly ground black pepper, to taste

Method

- 1 Place the tomatoes, garlic, onion, peppers, cucumber, cumin and olive oil in a food processor and blend.
- 2 Squeeze as much water as possible out of the bread, tear into small pieces and add to the mixture in the food processor. Blend vigorously until smooth.
- 3 Add the vinegar and pepper.
- 4 Pass the soup through a sieve to remove any seeds (optional). Cover and refrigerate. Serve when chilled.
- TIP: To increase the amount of protein and calories in the gazpacho, add a 400g can (drained) of chickpeas or beans, such as butter beans or cannellini beans, at step 1.

Nutrition information (per portion)



SERVES: 6



CALORIES: 215



FAT: 13.4g



SALT: 0.2g



5 A DAY: 2



Filling fruit smoothie

Ingredients

100ml whole milk

1 level tbsp skimmed milk powder

1 tbsp natural yoghurt

Ice cubes (optional)

1 heaped tsp peanut butter (ideally a brand that contains no added salt and sugar)

1 medium banana

160g frozen berries

40g oats

15g seeds

Method

Place all the ingredients in a blender, and blend until smooth. Pour into two glasses and serve.

Nutrition information (per portion)



SERVES: 2



CALORIES: 312



FAT: 12.2g



SALT: 0.2g



5 A DAY: 1.5





Taste changes

Cancer treatments such as chemotherapy, radiotherapy and certain medications can affect the way foods and drinks taste, as can cancer itself. Food may taste unpleasant, bland or particularly metallic, sweet or salty. The good news is that taste changes are often temporary.

What can help?

Taking care of your mouth

Having a dry mouth can affect your sense of taste so try to drink plenty of fluids and keep your mouth and tongue clean by brushing regularly – using a soft-bristled toothbrush may be more comfortable. You may also want to see your dentist or oral hygienist to make sure that there aren't any problems with your teeth or gums.



Choosing your food

- ▶ It might help to eat what you enjoy and ignore what you don't fancy for the time being. If a food you normally like tastes unpleasant, you could always try it again another time as your taste may change. Some people find that cold food tastes more pleasant than hot food.
- ▶ If your food tastes metallic, it might help to avoid canned food and drink and to avoid cooking with metal pots and pans. You could also try using plastic cutlery and adding grated carrot, cinnamon or a little honey to your food to help sweeten it.



Adding flavour

Serving food with strong-flavoured condiments, such as pickles, mustard, vinegar, salad dressings or lemon juice can help make them more appealing, as could adding more flavour to your cooking by using herbs, spices, seasoning and marinades. You could:

- Roast lean meat with strong herbs like rosemary, thyme and mint.
- Cook minced or diced lean meat with garlic, ginger or even cinnamon and nutmeg.
- Cook chicken and turkey with garlic, tarragon, basil, lemon juice or chilli.
- Cook fish with fennel, dill, pepper, lime, parsley or coriander.
- Spice up dishes with strongflavoured vegetables, such as celery, onions, leeks and tomatoes.
- Sweeten desserts and breakfast foods such as porridge with a sprinkle of cinnamon or nutmeg.

If you also have a sore mouth, it's probably best to avoid too much spice or spicy foods (see pages 34–35 for tips to soothe a sore mouth).

Choosing fresh tastes

Try sharp, fresh-tasting foods like lemon, and drinks such as bitter lemon. These may help stimulate your taste buds, increase the flow of saliva and get rid of any unpleasant tastes in your mouth. However, certain citrus fruits, particularly grapefruit, can affect the way some medications work so check with your doctor or pharmacist first.

Trying different textures

Experiment with different textures to see if they make things tastier – for example, you might prefer toasted bread and crackers to soft bread and potatoes. To add extra crunch, try sprinkling seeds or dried onion over savoury dishes, or chopped nuts over desserts. However, avoid doing this if your mouth is very dry or sore.



Reducing your risk of infection

Your immune system helps protect your body from infection and disease but it may not work as well as normal during and after cancer treatment. Treatments such as chemotherapy aim to stop cancer cells from growing and dividing but they also affect normal cells, such as white blood cells, which are part of your immune system. If you have a low number of white blood cells, you're at a higher risk of infection or food poisoning.

If you have blood cancer, you are more likely to be 'neutropenic' (which means your white blood cell levels are very low) so you may have to be even more careful to avoid infection or food poisoning and will need specific advice from your doctor or dietitian (also see pages 49–50 for details of who to contact for more advice).

The good news is that immune cells recover when treatment stops. You can also take some simple steps to protect your immune system and prevent infection.

How can I protect my immune system?

While you're having cancer treatment, eating well and keeping active can help keep your immune system working at its best.

The best way to support your immune system is by making sure your body gets all the nutrients it needs from a balanced and varied diet rather than focusing on specific foods. As well as eating plenty of vegetables and fruit, try to eat enough calories (energy) and protein, especially if you've lost weight (see pages 10–15 for more advice).





Following good food hygiene

Practising good food hygiene is very important to protect you from food poisoning. Make sure you:

- Wash your hands with soap and warm water before and after preparing, cooking and eating food.
- Clean all worktops and chopping boards before and after cooking.
- Check food is in date (especially food that has a 'use by' date) and doesn't have any visible mould on it.
- ► Try to avoid buying foods that are kept unpackaged, especially foods that you won't cook before eating, such as bread and baked goods from bakeries, sandwich fillings in cafes and deli foods.
- Keep raw meat and fish away from ready-to-eat foods, such as bread, salad and fruit, and prepare them using different chopping boards and utensils.
- Store raw meat in a clean, sealed container on the bottom shelf of the fridge.
- Wash fruit and vegetables thoroughly under cold running water before eating.
- Check that food is heated through before you eat it.
- Store food at the correct temperature and make sure you defrost and reheat foods safely.

Foods to avoid

While you're having cancer treatment, it's also important to be careful with certain foods that are more likely to contain harmful bacteria. It's normally best to avoid paté, raw or undercooked seafood and fish, and cheeses made from unpasteurised milk, such as brie and blue-veined cheeses. Speak to your doctor or dietitian for more specific advice.

Fatigue (extreme tiredness)

Fatigue is common in people who have cancer – and it's more than the usual feeling of tiredness. You may feel very tired or exhausted most or all of the time. Fatigue can have a big impact on your everyday life, making you feel both physically and mentally drained, and leaving you with little energy or motivation.

A combination of different factors could cause fatigue:

- ► The effect of cancer and cancer treatments on your body
- Problems with eating and drinking
- Low levels of red blood cells (anaemia)
- ▶ Other symptoms and side-effects, such as pain or breathlessness
- Side-effects of some medication
- Sleeping difficulties
- Anxiety and depression

If your fatigue is a side-effect of being anaemic (having low levels of red blood cells), your doctor will prescribe you with medication that will help. If you are concerned, speak to your doctor.



Living with fatigue can be difficult, but there are ways to help manage and improve it.

What can help?

Being as active as possible

Being active may be the last thing you feel like doing if you're tired, but there's lots of research to show that doing some light to moderate physical activity every day can help improve fatigue and make you feel more energised.

Keeping active can also increase your appetite and generally boost your wellbeing.

See pages 46–47 for more ideas about keeping active.



Mealtimes

It's quite common to feel too tired to prepare or cook any meals. Here are some ideas for dealing with this:

- Friends and family are often keen to help – maybe they could prepare some meals for you to freeze or do a weekly shop for you?
- Supermarkets stock lots of healthy convenience and readymade meals and snacks that don't need much preparation that you could try.
- If you're too tired to go out, why not try online shopping?
- ➤ There are companies that can deliver good quality frozen or cooked meals, or meal preparation kits to your door ask a dietitian if they can recommend one in your area.

Eating and drinking well

- Eating well and keeping a healthy weight can help you to keep up your strength and improve your energy levels.
- If possible, choose foods that release energy over a longer period of time, such as potatoes with skin on and wholegrain foods (wholemeal bread, brown rice and wholewheat pasta, and unsweetened, wholegrain breakfast cereals). Sugary foods may give you a quick boost but won't give you energy for very long.
- ▶ Being dehydrated can make you feel tired, so try to drink plenty of liquid such as water, milk, sugar-free squash, diluted juice or herbal tea. Aim to drink at least 1.2 litres (2.1 pints) a day this is at least six to eight glasses.
- If you've also lost weight, you could follow our advice on pages 10-15 to help increase your calorie and protein intake.
- If you have mouth problems, see pages 34-35 for tips and advice on how to make food more palatable.







Keeping active

Alongside eating well, it is important to keep active when you have cancer. Making time for physical activity can have many benefits.

What are the benefits of keeping active?

There's growing evidence that people who are active before and after a cancer diagnosis have a better chance of survival. On top of this, physical activity can:

- Help reduce fatigue
- Boost your immune system
- Keep your heart and lungs healthy
- Reduce the risk of other diseases, such as heart disease, Type 2 diabetes and high blood pressure
- Help reduce anxiety and depression, and improve your mood
- Improve your muscle strength and reduce muscle loss. This is especially important if you're losing weight as a result of cancer or cancer treatment
- Help with some of the other side-effects mentioned elsewhere in this booklet, such as easing constipation by helping to move food through your bowel

Is it safe for me to exercise?

Generally it's safe and beneficial for people with cancer to exercise. However, it's best to start slowly and build up if you aren't used to exercising regularly. You may also want to let your doctor or nurse know before you start being more active as they might be able to signpost you towards a qualified exercise specialist who can give you individual advice and support.

Weight gain

Some cancer treatments, such as hormone therapy for breast or prostate cancer, may cause weight gain, while some medicines, such as steroids, may increase your appetite, meaning you want to eat more than usual. Being physically active, together with eating a healthy diet, can help you stay a healthy weight.

How can I get more active?

It can be tricky to know where to start, so here are some tips:

- Start at a level that's right for you – this will probably depend on how much exercise you've done in the past, what stage you're at with your cancer and treatment, and how well you're feeling.
- It can be especially hard if you are feeling tired, but even doing a small amount of activity is better than nothing. Exercising with a friend or relative can also help to make it more enjoyable.
- Ideally you should aim to do 150 minutes of moderate intensity exercise a week. This includes activities such as brisk walking or swimming.

This might sound like a lot if you haven't exercised for a long time, so try to start small and set yourself achievable goals. You could begin with a five to 10-minute walk, two or three times a week. As this starts to feel easier, you can build up the amount you do.

What sort of activity should I do?

A good way to get more active is by walking. Going for a walk every day gets you out into the fresh air and will make sure you aren't completely inactive.

It sounds obvious, but try to pick activities you enjoy. It doesn't have to be a sport or exercising in the gym – it could be swimming, gardening or dancing.

Try some strength exercises too.

These will help stimulate muscle growth and help prevent you losing muscle and strength. Strength exercises can be done using free weights (eg dumbbells or even water bottles or cans of food), weight machines or resistance bands. You can also do exercises that use your own body weight, such as squats or press-ups. Everyday activities like carrying shopping can also help.



Other advice you might find helpful

World Cancer Research Fund's main focus is to help people reduce their risk of developing cancer by following our Cancer Prevention Recommendations. As well as advice and tips on making healthy diet and lifestyle choices, we have lots of simple, healthy recipes that put our recommendations into practice.

We also provide advice to people who are living beyond a cancer diagnosis, to help them live long, healthy lives and to reduce their risk of developing cancer again. This advice can be found on our website.

Visit our website wcrf-uk.org or call us on 020 7343 4205 for more information.

Your feedback

We're always looking for ways to improve the information we provide.

If you have any comments or suggestions about any aspect of this booklet or our other health information, we would welcome your feedback. We'd also love to hear if any of the advice helped you, or if you have any tips you'd like to share with others. Any changes you suggest mean we can make our information better for other people. Email us at resources@wcrf.org with your feedback.

Advice from other organisations

General advice and support

Macmillan Cancer Support

Macmillan's Support Line is a free and confidential service, open Monday to Friday from 9am to 8pm. They can:

- Help with any questions about your treatment
- Provide information about financial support
- Give you details of support groups in your area
- Just be there for you to talk to

Call free on **0808 808 0000** or visit their website macmillan.org.uk/talktous

Advanced cancer care

Marie Curie

Marie Curie provides care, both at home and in their hospices, and support for people with terminal cancer. Their helpline is open Monday to Friday from 8am to 6pm, and Saturday from 11am to 5pm.

Call free on **0800 090 2309** or visit their website mariecurie.org.uk

Blood cancer and the neutropenic diet

Bloodwise

The charity Bloodwise, with the support of the British Dietetic Association's Oncology Specialist Group, has produced a patient booklet called **Eating Well with Neutropenia**, which is full of safe dietary advice for people who are neutropenic (see page 42), to help them avoid infection. You can download a free copy from **bloodwise.org.uk**

Advice on specific cancer types

There are many cancer charities in the UK, so knowing which advice you can trust can be difficult. A simple way of telling if an organisation is giving evidence-based and trustworthy advice is to look out for the **Information**Standard logo (see back cover). This logo can only be used by organisations that have shown that they have a robust procedure for producing their health information, and use the most up-to-date evidence.

Find a dietitian

British Dietetic Association

To find a registered dietitian in your area, call **0121 200 8080** or visit **bda.uk.com**

Support for carers

Carers UK

Caring for a loved one who is going through cancer can be incredibly difficult and isolating, so it is important to seek support if you need it. Carers UK offers support to carers, and can help to put you in contact with local support groups. Their helplines are open Monday to Friday from 9am to 4pm.

Call free on **0808 808 7777** (or on **028 9043 9843** if you're in Northern Ireland) or visit their website **carersuk.org**

Disclaimer

This booklet has been written with specialist oncology dietitians, and should be safe to follow for most adults who have cancer, with the exception of those excluded in the 'Who is this booklet for?' section on page 3. However, where the advice in this booklet differs from the advice given to you by your doctor or dietitian, it is always best to follow their advice as it will be specific to your needs. It should also be noted that many of the specific suggestions in this booklet, while safe, will not help everyone. They are suggestions that other people have found helpful, that you might also want to try.

For references used in this booklet or to request the information in large print, please contact us.

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