



Eating well – Living with and beyond cancer

A guide for patients and their carers



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Christie website

For more information about The Christie and our services, please visit **www.christie.nhs.uk** or visit the cancer information centres at Withington, Oldham or Salford.

Introduction

If you have a healthy weight and a good appetite then follow the advice in this booklet. This booklet offers advice on eating a varied and healthy diet.

If you are suffering from unintentional weight loss, symptoms that affect your eating or digestion or have had surgery on your gut then this booklet is not appropriate for you. Please check with your doctor, specialist nurse or dietitian for appropriate dietary guidance.

Dietary recommendations

The World Cancer Research Fund published its diet and lifestyle recommendations in 2018. They are aimed at preventing cancer but also for people who have had cancer and have completed treatment.

The dietary recommendations to help you eat well following your cancer treatment and recovery, include advice to:

1. Be a healthy weight.
2. Be physically active.
3. Eat a diet rich in wholegrains such as brown rice, wholemeal pasta, wholemeal bread.
4. Eat at least five portions of fruit/vegetables every day.
5. Limit consumption of red meat and avoid processed meats.
6. Limit consumption of processed and fast foods (foods high in saturated fat and/or sugar) and sugar sweetened drinks.
7. Limit consumption of salt and salty processed foods.
8. Don't use dietary supplements to protect against cancer.
9. Limit alcohol consumption.

Each section will explain more about the food groups, how much of them to include, why we should be eating these foods in the amounts advised and some tips to help you put this advice in to practice.

Starchy foods



What are they?

- Bread, pitta, chapatti, cereals, rice, pasta, crackers, oatcakes, quinoa, cous-cous, noodles, potatoes.
- Try to choose wholegrain (brown/ wholemeal) varieties where possible as they will help to increase your fibre intake.

How much of these foods should we eat?

- These foods should make up about a third of all the food that we eat.

Why should we eat more of these?

- They are a good source of energy therefore, when eaten regularly, can help reduce tiredness associated with cancer related fatigue.
- They are filling therefore can help prevent snacking on high energy foods in between meals.
- They are low in fat.

Cancer prevention recommendations



Why wholegrain varieties?

- There is strong evidence that eating wholegrains and foods containing dietary fibre protects against colorectal cancer. Unprocessed foods of plant origin are rich in essential nutrients and dietary fibre. Higher consumption of these foods can help regulate calorie intake and thereby help weight maintenance. This could protect against obesity-related cancers*.
- They help you feel fuller for longer.
- They help keep your bowels working regularly.

Top tips

- Try to consume a diet that provides at least 30g per day of fibre from food. To achieve this you need to include foods containing wholegrains, non-starchy vegetables, fruit, beans and lentils in most meals/snacks.
- It can be as simple as a wholegrain breakfast cereal in the morning, a sandwich made with wholemeal bread at lunch and brown pasta, rice or a jacket potato with your evening meal.
- Try not to add fat, such as butter or cream, and opt for boiled or steamed starchy vegetables rather than roasted or fried in oil.

Fruit and vegetables



What does this group include?

- It includes all fruit and vegetables; whether fresh, frozen, canned in water or natural juices, dried or juiced.

How much of these foods should we eat?

- Try to eat a minimum of five portions per day. A portion of fruit or vegetables is approximately 80-100g (3-4oz) or roughly 'a handful'.

Some examples of a portion include:

- One medium sized piece of fruit (apple/orange/banana)
- Two small fruits (kiwi/satsuma/plums)
- Half a cupful of berry fruits (strawberries/raspberries/grapes)
- 1 slice of large fruit (melon/pineapple)

- 3 heaped tablespoons of cooked vegetables or fruit salad
- A dessert bowl of salad
- 3 heaped tablespoons of pre-cooked or canned beans or pulses (only counts once per day)
- 1 small glass (150ml) of pure fruit or vegetable juice (only counts once per day)
- 1 heaped tablespoon of dried fruit like raisins, sultanas, apricots or dates (only counts once per day)

Why should we eat more of these?

- These foods are low in calories and are higher in dietary fibre so can help you manage your weight and keep your bowels working regularly.
- They are also good sources of vitamins, minerals and phytochemicals which can help your body to defend itself against cancer and help support your immune system.

Top tips

- Eat a rainbow. Different coloured fruits and vegetables contain combinations of vitamins, minerals and fibre. So to get the most benefit, try to eat one portion from each colour group. Remember potatoes and yam do not contribute towards your five-a-day because they are starchy foods.
- Include a 150ml glass of pure fruit juice at breakfast.
- Add a sliced banana/half a tin of apricots or a tablespoon of dried fruit to your breakfast cereal.
- Include a side salad at lunch.
- Have an apple or pear as an afternoon snack in place of a piece of cake, muffin or chocolate bar.
- Include a portion of peas or carrots with your evening meal.

- Have a handful of raw chopped carrot, celery sticks or cherry tomatoes in place of a bag of crisps.
- Include a smoothie or a portion of soup as part of your meal.

Red meats and processed meats



What are red meats?

- Beef, veal, pork, lamb, mutton and goat.
- These foods are excellent sources of protein, iron, zinc and vitamin B12 in our diet therefore can be beneficial to include; however the recommendations are to limit the amount consumed. Lean rather than fatty cuts are preferred.
- In cancer prevention, it is also recommended to avoid processed meats, which are meats preserved by smoking, curing, salting or the addition of chemical preservatives, such as ham, salami, bacon and hot dogs and frankfurters.

How much of these foods should we eat?

- There is strong evidence that consumption of either red or processed meat are both causes of colorectal cancer*.
- For processed meats (ham, salami, peperoni, chorizo, pastrami, corned beef, bacon and hot dogs) the recommendations are to avoid these.
- For red meats, the recommendations are to eat no more than three portions a week, which is around 350-500g

cooked weight (or 525 - 750g raw weight) a week. If you do eat red meat, cutting down can help protect against bowel cancer*.

- This is no more than approximately 3 average portions of red meat per week.

Some examples:

- Small portion of roast beef/lamb/pork/goat (100g/4oz)
- Pork or lamb chop (75g/3oz)
- Quarter pounder beef burger (100g/4oz)
- Medium steak (145g/5oz)

Why should we restrict these foods?

- We recommend eating very little, if any, processed meat because strong evidence shows that it can be high in fat and salt and eating it is a cause of bowel cancer. If you eat meat, it's best to choose unprocessed meat.

What foods can we replace these with?

- Animal foods such as fish, chicken and eggs are also good sources of protein and are not associated with an increased cancer risk; therefore can be included regularly.
- Non-animal foods such as beans, lentils and chickpeas; soya and soya products for example tofu, soya mince; mycoprotein such as Quorn and also nuts are all good sources of protein and can also be included regularly.
- Aim for 2 portions of protein rich foods daily. A portion is equal to 80-100g (3-4oz) of meat and 100-120g (4-5oz) of fish. This roughly equates to the size of the palm of your hand.

- However, eating meat is not an essential part of a healthy diet. People who choose to eat meat-free diets can obtain adequate amounts of these nutrients through careful food selection. Make sure that you include **protein** from a mixture of pulses (legumes) and cereals (grains). **Iron** is present in many plant foods such as beans, peas, lentils, spinach, broccoli, tofu, nuts and seeds.

Some examples:

- A medium fillet of cod/haddock/plaice (120g/5oz)
- An average salmon steak (100g/4oz)
- 1 small can of tuna (100g/4oz)
- 1 small chicken breast or small portion of roast chicken (100g/4oz)
- 2 average size eggs (100g/4oz)
- $\frac{2}{3}$ of a can of cooked and drained kidney beans/chickpeas/lentils (180g/6oz)
- Average portion of Tofu (100g/4oz)
- Average portion of Quorn mince (100g/4oz)

Top tips

- Try halving the amount of red meat you use in a recipe and replace with beans or pulses, for example in chilli con carne, curry or bolognese.
- Try to aim for two portions of fish per week, including one portion of oily fish (for example salmon, sardines, mackerel, herring, pilchards). Fish is an excellent source of protein and contains many vitamins and minerals. Oily fish provides your body with omega-3 fatty acids which have other health benefits including helping your immunity, protecting against heart problems and improving memory.

Fast and processed foods

What are fast and processed foods?

Limiting these foods helps to control your calorie consumption and maintain a healthy weight. Fast foods and processed foods are high in fat and sugar. Examples of these are:

- Foods high in saturated fat include: fatty meats, sausages, pastries, cakes and biscuits.
- Foods and drinks high in sugar include: full sugar fizzy drinks and cordials, sweets, chocolate, cakes, biscuits, desserts.

There are two main types of fat – saturated (animal fats) and unsaturated. Overall, aim to keep your intake of fat to a minimum. When including fats, aim for ones low in saturated fats because having too much saturated fat can increase the amount of cholesterol in the blood, which increases the risk of heart disease. In preference, use unsaturated fats such as sunflower oil, rapeseed oil or olive oil, nuts, seeds and oily fish.

How much of these foods should we eat?

Have a look at the label to see how much fat a food contains; generally this will be displayed in grams (g) per 100g of food.

	Fat (g Per 100g)	Saturated Fat (g Per 100g)	Sugar (g Per 100g)
High	Over 17.5g	Over 5g	Over 22.5g
Medium	Over 3g to 17.5g	Over 1.5g to 5g	Over 5g to 22.5g
Low	3g and below	1.5g and below	5g and below

Why should we restrict these foods?

- There is strong evidence that diets containing large amounts of processed foods, high in fat, starches or sugars, are causes of **weight gain and obesity** due to excessive calorie intake.
- Most of the evidence on 'fast foods' is from studies of foods such as burgers, fried chicken pieces, chips (French fries) and **high-calorie drinks** (containing sugars, cola, or fat, milkshakes).
- More highly processed foods have generally undergone industrial processing and are often higher in energy and lower in micronutrients.

These foods include:

- potato products such as chips and crisps
- products made from white flour such as bread, pasta and pizza
- cakes, pastries, biscuits and cookies
- confectionery

This recommendation does not imply that all foods high in fat need to be avoided. Some oils of plant origin e.g. nuts and seeds, are important sources of nutrients. Their consumption has not been linked with weight gain, and tend to be consumed in smaller portions.

Top tips

- Opt for lean cuts of meat and trim as much fat away as possible before cooking.
- Use a small amount of sunflower oil/olive oil or a reduced fat spread instead of butter, lard or ghee.

- Choose lower-fat dairy foods such as skimmed or semi-skimmed milk, low fat yogurts, cottage cheese or low fat varieties of soft or hard cheese.
- Try sugar free drinks for example 'no added sugar' squash and 'diet/lite' fizzy drinks or simply water.
- Keep biscuits, cakes, chocolate and crisps as an occasional treat rather than a regular snack.

Salt

What is salt?

- Salt is used as a preservative and also to season food.
- It is hidden in many of the processed foods that we eat and approximately 75% of the salt in our diet comes from processed foods (for example bread, cereals, ready meals, snacks).
- Common high salt foods include: ready meals, tinned foods, cured/processed meats, sauces and snacks such as crisps/salted nuts.



How much of these foods should we eat?

Have a look at the label to see how much salt a food contains; generally this will be displayed in grams (g) per 100g of food.

	Salt (g per 100g)
High	Over 1.5g
Medium	Over 0.3 to 1.5g
Low	0.3g and below

- Try to limit foods which have a high salt content.
- The government recommends that an adult should consume no more than 6g of salt per day.
- If you have had surgery to the bowel, for example if you have an ileostomy, you may have been advised to include extra salt in your diet so please speak to your dietitian.

Why should we limit these types of foods?

- Eating too much salt can raise your blood pressure which can increase the risk of heart disease or stroke.
- Research also shows that salt and salt-cured foods can increase the risk of certain types of cancer.

Top tips

- Eat more home made meals as you have more control over the ingredients.
- If you add salt to food during cooking or at the table, try to reduce the amount you use aiming to cut it out all together.
- Try adding other flavours to your food instead of salt such as garlic, ginger, chilli, herbs and spices.
- Try making your own fresh chicken or vegetable stock instead of using stock cubes which are high in salt.
- Check food labels, especially of processed foods and try to choose the lower salt option.

Dairy products

What are they?

- Milk, yogurt and cheese.

How much of these foods should we eat?

- 3 portions per day for adults including pre menopausal women.
- 4-5 portions per day for post menopausal women.
- 3-4 portions per day for teenage girls.
- 4-5 portions per day for teenage boys.

A portion is:

- One third of a pint/200ml of milk
- One standard pot yogurt (150g/6oz)
- 30g/1oz cheddar cheese
- Choose lower fat varieties where possible.

Why should we include these foods?

- Dairy products are an excellent source of calcium, protein and other nutrients in our diet.
- Calcium is essential to help maintain healthy bones and reduce the risk of osteoporosis.
- It is therefore important to include dairy products as part of a healthy balanced diet.
- There is no scientific evidence to suggest that dairy products cause or affect cancer or that there is any benefit from following a dairy-free diet.



You don't need to get all your calcium from dairy foods – the following foods are examples of non-dairy foods which contain calcium. You will notice that they need to be included in larger quantities to get the equivalent amount, however can be useful in meeting your daily requirements.

Calcium source	A portion
Tinned sardines in tomato sauce	Half small tin (50g/2oz)
Tinned salmon	Full small tin (200g/7oz)
Tofu	50g/2oz
Calcium-enriched soya milk, rice milk, almond milk or oat milk	One third of a pint/200ml
White bread	3 slices
Spring greens/okra/kale/spinach, boiled	Large portion (130g/5oz)
Dried figs	5
Tinned kidney beans	Full large tin (240g/8oz drained weight)

Top tips

- Achieving your 3 portions of dairy foods per day can be as simple as: adding one third of a pint of milk to your breakfast cereal, having a 30g/1oz portion of cheddar cheese on a jacket potato for lunch and including a low fat yogurt after your evening meal.
- Try to choose low fat dairy products where you can for example semi-skimmed/skimmed milk, low fat yogurts, reduced fat cheeses or cottage cheese.

Dietary supplements

What are these?

- These are any dietary supplements including vitamins, minerals, herbs, antioxidants or fatty acids. They come in a wide range of doses and different forms.

Why should we not take supplements to protect against cancer?

- Dietary supplements are not recommended for cancer prevention as they do not replace the natural benefits gained from real foods.
- Evidence has shown that high dose supplements can have unpredictable effects therefore are not safe to recommend.
- Some supplements have been found to interact with certain chemotherapy regimens and as a consequence, may alter the effectiveness of the treatment.
- **There is strong evidence to show that eating a healthy diet, including a variety of foods as discussed in this booklet, is the best way to get enough vitamins and minerals.**
- In certain cases your doctor or other health professional may advise specific nutrient supplements for other health reasons. Please speak with your doctor, dietitian or specialist nurse.

Superfoods

The term 'superfood' is often used to describe a food claiming to prevent or even cure many diseases, including cancer. Foods such as blueberries, broccoli, green tea and many more. The term 'superfood' is really just a marketing tool, with little scientific basis. Any fruit and vegetables should form part of a healthy, balanced and varied diet to help reduce the risk of cancer but it is unlikely that any single food will make a major difference on its own.

This booklet focuses on dietary recommendations, but the following should also be part of a healthy lifestyle in cancer prevention:

Keep to a healthy weight

After not smoking, being a healthy weight is the most important way you can protect yourself against cancer. You can check your Body Mass Index (BMI) to find out whether you're a healthy weight for your height.

Measuring your waist is a good way to check if you are a healthy shape. Having a healthy waist measurement is linked to a lower risk of cancer.

To check your BMI/waist circumference, more information can be found on the NHS website www.nhs.uk (in the search box enter 'BMI calculator') for how to calculate your BMI. For waist circumference measurement, using the same website: in the search box enter 'Why is my waist size important' to guide you on how to measure waist circumference and actions for high measurements.

Research shows that there are several reasons for the link between body weight and cancer:

- Storing too much fat can cause insulin resistance (where insulin becomes less effective at controlling blood sugar levels).
- This can encourage the body to produce growth hormones.
- High levels of these hormones can promote the growth of cancer cells.
- Body fat also stimulates an inflammatory response.
- Inflammation can promote the growth of cancer, by encouraging cancer cells to divide.
- This inflammatory response may underpin the wide variety of different cancers that have been linked to obesity.

If you have experienced weight gain, aim to reduce it gradually by following a healthy eating plan, visit www.nhs.uk for more information.

If you have unintentionally lost weight or are underweight and are struggling to gain it back, see The Christie information booklet 'Eating – help yourself'.

For any issues with weight, speak with your hospital doctor or GP for a referral to a registered dietitian.

Be physically active

Once you have recovered from your treatment and your specialist gives you the go ahead, start to build up your activity levels. Try to be active every day and gradually build up the amount you do, eventually aiming for at least 30 minutes per day. This doesn't mean you need to join a gym, you could just fit in as much walking as you can into your daily routine.



For more information, see The Christie information booklet 'Be Active Stay Active – a guide for exercising during and after treatment for cancer'.

Limit alcohol intake

The Department of Health recommends that people should not regularly drink more than 14 units of alcohol a week, spread over at least 3 days. This is roughly equal to 7 drinks a week, one drink being:

- a small glass (125ml) wine
- half a pint regular strength lager/cider
- a single measure of spirits

There is strong evidence that consumption of alcoholic drinks is a cause of cancers including breast, bowel, liver, mouth and throat, oesophageal and stomach cancers. To reduce your cancer risk as much as possible, the recommendation is not drinking alcohol at all.

The evidence shows that alcoholic drinks of all types have a similar impact on cancer risk whether beers, wines or, spirits. If you do consume alcoholic drinks, do not exceed national guidelines.

- Men and women 14 units a week
- Do not save them all for 1-2 days
- Have alcohol free days
- 1 unit alcohol = ½ pint beer or 25ml shot whisky*

For more information, see the NHS 'Drink Smart' booklet available from The Christie or visit www.drinkaware.co.uk or www.nhs.uk

Sample menu plan

This sample menu plan gives examples of what to eat at mealtimes to fit in with the dietary recommendations which have been discussed.

Breakfast ideas

- Wholegrain cereal topped with sliced banana and semi-skimmed milk
- 2 slices of wholemeal toast with baked beans
- Bowl of porridge made with semi-skimmed milk and topped with a handful of dried fruit
- Fresh fruit salad topped with natural/low fat yogurt plus 1 slice of wholemeal toast

Include a small glass of fresh fruit juice with your breakfast to meet one of your 5 a day.

Mid-day meal ideas

- Multigrain bread roll/wholemeal pitta bread with filling, for example egg mayonnaise and lettuce or tuna and sweetcorn or chicken and salad
- Jacket potato topped with tuna and sweetcorn or cottage cheese served with a side salad
- Scrambled eggs on wholemeal toast topped with sliced tomatoes
- Oat cakes topped with cottage cheese and sliced cucumber
- Cooked rice/pasta/potatoes/cous cous made in to a salad with tuna/chicken/pulses and your favourite low-calorie dressing
- Homemade lentil soup with a wholemeal bread roll

Include a piece of fresh fruit or handful of dried fruit plus a low fat yogurt/fromage frais/glass of milk with your lunch.

Evening meal ideas

- Pasta with sliced chicken breast in a tomato sauce
- Vegetable and lentil curry with rice and chapatti
- Chicken breast with potatoes, broccoli and carrots
- Grilled fish fillet with cous-cous and mixed vegetables
- Pasta with tuna, sweetcorn and chopped tomatoes
- Chilli con carne made with half the amount of lean mince beef and extra kidney beans, served with rice or crusty bread
- Vegetable and cashew nut or tofu stir fry served with noodles

Fancy a dessert? Try a healthier option

- Low fat yogurt topped with dried fruit
- Fresh fruit salad
- Tinned fruit topped with low fat yogurt
- Stewed fruit served with low fat custard
- Low fat rice pudding topped with berries or stewed fruit

Feeling hungry? Try these snack ideas

- Portion of fresh fruit for example banana/apple/orange/ small bunch grapes/2 plums
- Handful of dried fruit for example raisins/sultanas/ apricots/dates
- Strips of carrot/celery/cucumber with low fat humous dip
- Plain rice cakes topped with low fat cream cheese
- Low fat yogurt
- Slice of toast with a banana

- Small scone or slice of fruit loaf
- Small handful of unsalted nuts

Drink ideas

- Plain or sparkling water
- Plain milk (skimmed or semi-skimmed)
- Pure fruit juice (150ml)
- Low calorie/diet squash or fizzy drinks
- Tea, coffee or fruit tea

If you have any concerns or further questions about your diet please ask your doctor or specialist nurse to refer you to a registered dietitian for advice.

Websites

World Cancer Research Fund

www.wcrf-uk.org

Cancer Research UK

www.cancerresearchuk.org

British Dietetic Association

www.bda.uk.com/foodfacts

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

The Christie is committed to producing high quality, evidence based information for patients. Our patient information adheres to the principles and quality statements of the Information Standard.

If you would like to have details about the sources used please contact the-christie.patient.information@christie.nhs.uk

Contact The Christie Hotline for
urgent support and specialist advice

The Christie Hotline: 0161 446 3658

Open 24 hours a day, 7 days a week

Visit the Cancer Information Centre

The Christie at Withington **0161 446 8100**

The Christie at Oldham **0161 918 7745**

The Christie at Salford **0161 918 7804**

Open Monday to Friday, 10am – 4pm.

Opening times can vary, please ring to check
before making a special journey.

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