10 WAYS TO PROTECT YOURSELF AGAINST CANCER
Dear supporter,

Thank you for choosing World Cancer Research Fund UK’s information booklet, 10 Ways to Protect Yourself Against Cancer.

The case for prioritising the prevention of cancer is strong: cancer can take a heavy personal toll on those affected, and the global burden of cancer is high and rising, yet many cases of cancer are preventable. Furthermore, recommendations for preventing cancer have additional benefits both for reducing your risk of other common diseases, such as heart disease and Type 2 diabetes, and for the planet.

The Cancer Prevention Recommendations in this booklet were updated in 2018 in our Third Expert Report: Diet, Nutrition, Physical Activity and Cancer: a Global Perspective. They’re based on the latest comprehensive review of research on cancer prevention and survival, related to diet, weight and physical activity, to ensure we provide the most reliable and up-to-date guidance on reducing your cancer risk. Recommendations were only made when the evidence was strong enough to do so.

As well as a comprehensive guide to our Recommendations, this booklet contains practical advice to help you make healthy lifestyle choices and help you to protect yourself against cancer.

We hope you find this booklet interesting and informative. Help us spread our important cancer prevention messages by sharing it with your family and friends.

Yours faithfully,

Marilyn Gentry
Founder
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31 Cancer Prevention Recommendations
10 ways to protect yourself against cancer

Our panel of world-renowned experts have developed the Cancer Prevention Recommendations, based on robust, up-to-date scientific research from around the world. Adopting our Recommendations supports an overall way of living healthily to prevent cancer. Keep reading for an explanation of each of the Recommendations, and for tips and advice to help you include them into your lifestyle. The full list of Recommendations can be found on page 31.
Reduce your cancer risk

Almost all of us are affected in one way or another by cancer. Currently, one in two people born in the UK after 1960 will develop cancer during their lifetime. But we are not powerless. Most of us know that smoking and too much sun exposure can be causes of cancer, but did you know that other lifestyle choices also affect your cancer risk? If we all lived healthy lifestyles, which includes eating a healthy diet, being physically active and maintaining a healthy weight, around 40 per cent of cancer cases could be prevented.

There are no guarantees when it comes to cancer but a growing number of independent studies show that the more you follow our Cancer Prevention Recommendations, the lower your risk of developing cancer and other diseases such as heart disease and Type 2 diabetes. By following all our Cancer Prevention Recommendations, choosing not to smoke (or giving up smoking) and being safe in the sun, you will have the best chance of living a life free from the disease.

Take simple steps...

You don’t have to make extreme changes to your diet and lifestyle to help prevent cancer. Your health could benefit by simply reshaping some of your habits and everyday routines. Regardless of your age and lifestyle, any change you make that works towards meeting the goals set out in the Recommendations will go some way to reducing your cancer risk.

Keep reading for lots of advice on how you can make changes to improve your health and reduce your cancer risk.

For information about our work, and for more tips, advice and healthy recipes, visit our website: wcrf-uk.org
Cancer explained

The term cancer describes over 100 different diseases. Cancer is a disease of the cells. Cells are the basic building blocks of our body and they are controlled by our genetic information (DNA). All cancers start when the DNA in a single cell becomes damaged. This cell can start to divide uncontrollably, forming a cluster of cells, which is known as a tumour. Not all tumours are cancerous but a cancerous tumour may grow and damage surrounding healthy tissues or organs. Sometimes they can spread to other areas of the body.

Many people think cancer is just a result of our inherited genes or bad luck. However, research shows that genetics only cause a small proportion of cancers, whereas lifestyle plays a much bigger part.

Inherited genes

Only about five to 10 per cent of all cancers result from specific inherited genes. Scientists have identified genes that are linked to cancer, including breast and bowel cancers, but these are rare. People who inherit these genes have a higher than average risk of cancer, but it doesn’t mean they will definitely get cancer. In many cases, their risk may be reduced by following our Cancer Prevention Recommendations.

If you have a history of cancer in your family, or are concerned you may have inherited genes that increase your cancer risk, it is always best to speak to your doctor.

Preventable causes of cancer

Globally, around 40 per cent of cancer cases could be prevented. After not smoking, maintaining a healthy weight throughout life, consuming a healthy diet and being physically active are some of the most important ways that people can protect themselves against cancer – and these risk factors are discussed in detail in this booklet.

We can also help to prevent cancer by minimising our exposure to other risk factors, including tobacco, infections, sun, radiation and industrial chemicals.

Tobacco

Tobacco can cause cancer however it enters the body – not just when it is smoked – and it is particularly harmful if you also drink alcohol. Research has shown that passive smoking is also harmful.
Worldwide, tobacco use causes 90 per cent of lung cancers in men and 80 per cent in women. It is also linked to cancers of the bowel, kidney, womb, mouth and throat, bladder, pancreas, oesophagus, stomach, liver and cervix.

Lung cancer is the third most common cancer in the world and the most common cause of death from cancer, estimated to be responsible for nearly one in five cancer deaths. For this reason, not smoking, or giving up smoking, is the single most important thing you can do to help protect yourself against cancer.

For further advice and support, visit: nhs.uk/smokefree

Infectious diseases

Some infectious diseases are known to increase the risk of developing cancer. For example, HPV (human papilloma virus) is a known cause of cervical cancer; Helicobacter pylori bacteria is linked to stomach cancer; and Hepatitis B and C increase the risk of liver cancer. Vaccinations and using a barrier method of contraception, such as a condom, can help to prevent some of these diseases from spreading.

Environmental causes

Ultraviolet light (UV) is a cause of skin cancer, so always aim to be safe in the sun by wearing sunscreen, covering up and staying in the shade when the sun is at its strongest. Also avoid using tanning sunbeds.

High levels of exposure to some air pollutants, such as radon, can damage DNA and may increase risk of lung cancer. Excess X-ray radiation and some industrial chemicals can also damage DNA and increase cancer risk. This is unlikely to be a concern unless your job requires high exposure to these risk factors.

Read more about our research: wcrf-uk.org/our-research

What can I do?

Cancer prevention is about achieving a healthy balance. The diet and lifestyle choices you make today can help prevent cancer tomorrow. By taking steps towards following all the Cancer Prevention Recommendations in this booklet, you will help to protect yourself against cancer, as well as other diseases such as heart disease and Type 2 diabetes. Don’t worry about the occasional indulgence; the important thing is to make healthy choices a normal part of everyday life.
Be a healthy weight

Keep your weight within the healthy range and avoid weight gain in adult life.

Did you know that being a healthy weight is the most important way you can protect yourself against cancer, after not smoking?

Weight and cancer

There is strong evidence that being overweight or obese is a cause of 12 different types of cancer: breast (in post-menopausal women), bowel, prostate (advanced only), kidney, mouth and throat, pancreatic, oesophageal (adenocarcinoma only), womb, ovarian, stomach (cardia only), liver and gallbladder cancer.
Fat cells release hormones such as oestrogen. Excess oestrogen can increase the risk of some cancers, like breast and womb cancer, and promote their growth.

Storing too much fat can cause insulin resistance (where insulin becomes less effective at controlling blood sugar levels), which encourages 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.

There is strong evidence that doing aerobic activity, such as walking, and eating a diet rich in fibre protect against weight gain.

The evidence also shows consuming fast foods, sugar-sweetened drinks (see page 24), a ‘Western type’ diet (see page 21) and screen time (see page 13) are causes of weight gain, overweight and obesity.

**Weight facts**

Did you know that about **two in every three** adults in the UK are **overweight or obese**?

Eating just **100 calories** a day more than you need can lead to **weight gain** of around **5kg** (11lbs) in a year.

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**Balancing your weight**

Your weight is a balancing act between the energy you put in (calories from foods and drinks) and the energy you use (for normal bodily functions and what you burn during physical activity).

The **average adult man needs around 2,500 calories a day** and an **average woman needs about 2,000 calories**. If you eat or drink more than your body needs, you will put on weight. The reverse is also true: if you regularly use more energy than you take in, you will lose weight.
Are you a healthy weight?

Measuring your BMI

Body Mass Index (BMI) is a simple way to find out whether you’re a healthy weight for your height.

1. Measure your height, in metres (1ft = 0.3m).
2. Weigh yourself, in kilograms (1 stone = 6.35kg).
3. Calculate your BMI using the formula in the box on the right.

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<thead>
<tr>
<th>BMI</th>
<th>Classification</th>
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<tbody>
<tr>
<td>Less than 18.5</td>
<td>Underweight</td>
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<tr>
<td>18.5 – 24.9</td>
<td>Healthy weight</td>
</tr>
<tr>
<td>25 – 29.9</td>
<td>Overweight</td>
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<tr>
<td>30 or more</td>
<td>Obese</td>
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</table>

Example calculation:

Weight: 70kg
Height²: (1.7m x 1.7m)

\[
\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)} \times \text{Height (m)}}
\]

= BMI of 24.2

Or put your details into our online calculator: wcrf-uk.org/bmi-calculator

BMI may be less reliable if you are elderly, less than 1.5m/5ft tall, pregnant or an athlete, but for most adults, it’s a good way of checking whether you’re a healthy weight.

Maintaining your weight

If you’re already within the healthy range, that’s a great start for your health. It is worth remembering that the more body fat you have, the higher your cancer risk. This means that gaining weight – even when you are in the healthy BMI range – can increase your cancer risk. That’s why, unless you are underweight, it is important to stop those pounds from sneaking on.

The tips in this booklet can benefit your health and can be used to help keep your weight healthy in the future.
Measuring your waist

Your waist measurement is a good indicator of overall body fatness, which is linked to a greater risk of cancer, heart disease and Type 2 diabetes. To measure your waist:

1. Place the tape measure around your waist, at the halfway point between your lowest rib and the top of your hip bone. If you have trouble finding this point, then lean to one side and see where the skin folds. This is the point where you can measure your waist.

2. Make sure it’s level and a snug fit, but not digging into your skin.

3. Breathe normally, and measure after you have breathed out.

A healthy waist measurement is*: Less than 94cm/37inches for men Less than 80cm/31.5inches for women

*This may be different for Asian populations.

A healthy way to lose weight

If your BMI or waist measurement is over the healthy range, you’re likely to help protect yourself against cancer by losing some weight. You will also lower your risk of heart disease and Type 2 diabetes.

If you set yourself the goal of losing weight, try to eat healthily and make small changes rather than following a ‘fad’ diet. You can lose weight on some of these ‘fad’ diets, but because they are often low in calories or cut out vital food groups, they can’t be healthily followed for a long time and when you return to your normal diet, the weight easily returns too.

Instead, aim to gradually lose weight by using this booklet to make long-term healthy changes to your diet and add more activity into your routine: shedding 0.2–1kg (0.5–2lbs) a week is a realistic goal and one that you can achieve in a healthy way. Once you’ve achieved your goal, it’s important to continue eating healthily and being active to keep the weight off.
Be physically active

Be physically active as part of everyday life – walk more and sit less.

Being physically active can reduce your cancer risk, improve your long-term health and help make you feel great. Physical activity, when combined with a healthy diet, can also help you to manage your weight.

Getting active

Being active is not just about going for a jog or visiting the gym; there are plenty of other ways to get moving that you can easily fit into your usual routine.

Aim to do at least 150 minutes of moderate intensity activity or 75 minutes of vigorous activity (see page 14 for examples) a week. To increase the benefits even more and to help you control your weight, aim to do 45–60 minutes of moderate activity a day.

If you aren’t active, start introducing some short chunks (10 to 15 minutes) of gentle activity, such as walking, and build up slowly until you reach your target – anything is better than nothing. The key is to find something you enjoy as it is easier to stick to.
There is strong evidence that physical activity helps protect against colon, breast and womb cancer.

Studies show that regular physical activity can help to keep hormone levels healthy. This is important as having high levels of some hormones can increase cancer risk.

Being active can lower insulin resistance (a condition where the hormone insulin becomes less effective at lowering blood sugar levels). Insulin resistance can increase levels of inflammation in the body which has been shown to have a role in cancer development.

Being active helps move food through the digestive system more quickly, reducing the amount of time that any cancer-causing substances are in contact with the lining of the bowel.

Being overweight or obese is linked to many types of cancer. There is strong evidence that aerobic physical activity, including walking, protects against weight gain, overweight and obesity.

**Activity fact**

Over a third of men and nearly half of women still say that they don’t meet the Government recommendation of at least 150 minutes a week. (England, 2017)

See how many calories your favourite activities burn: wcrf-uk.org/exercise-calculator

**Sit less**

As well as moving more, it’s important to limit sedentary time – this means not sitting or lying down more than necessary, when not sleeping. There is strong evidence that excess screen time (time spent doing sedentary activities like watching television or using a computer) is a cause of weight gain, overweight and obesity. If you spend a lot of time sitting down, try to take regular standing breaks.
Mix up your movement

Regardless of your age, your current level of fitness or whether you are a woman or a man, it is important to include different types of activity in your routine.

Physical activity can be aerobic (cardiovascular), resistance (also called toning or strength training) or a combination of the two; and it can vary in intensity.

**Aerobic activities** get your heart beating faster and make you breathe more deeply for a period of time. This includes jogging, doing an aerobics class, playing tennis or football, and dancing.

**Resistance activities** work your muscles against weight or resistance. This includes using free weights, resistance bands, or exercises that use your own body weight like lunges and press-ups.

Exercises like swimming, cycling (especially uphill) and using a rowing machine work your heart, lungs and muscles.

**Moderate intensity activities** like brisk walking, cycling, household chores, gardening, swimming and dancing – will make you feel warmer and breathe faster, but you should still be able to talk.

**Vigorous activities** will raise your heart rate and make you start to sweat and feel out of breath. This includes running, aerobics, sports like squash, netball and football, and fast cycling.

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**Top tips for getting active:**

- **Active transport.** Instead of using public transport or driving, try cycling, jogging or power walking for all or part of your journey.

- **Keep it fun.** An activity you enjoy is easier to stick at. Inviting a friend or family member for a game of tennis or to join you for a jog can make it more fun and help them get healthier too.

- **Lunch break.** Use your breaks to get active. Maybe you can go for a swim or attend an exercise class, or simply stick on your trainers and go for a run or brisk walk?

- **Be proactive.** Make small changes like taking the stairs; walking up the escalator; standing up while you talk on the phone; or getting up to talk to a colleague.
Make it a habit

There are plenty of easy ways to fit activity into your routine that won’t mean spending a lot of money or getting up at dawn. Initially you will need to make the effort to change, but with motivation and support it will soon become just part of what you do – in other words, a habit.

Use this activity diary to record what types of physical activity you have done and for how long. It will make you think about how active you have been, and when and how you have made time to be active.

<table>
<thead>
<tr>
<th>Today I achieved:</th>
<th>Types of activity</th>
<th>Time being active</th>
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<tbody>
<tr>
<td>Monday</td>
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Eat a diet rich in wholegrains, vegetables, fruit and beans

Make wholegrains, vegetables, fruit, and pulses (legumes) such as beans and lentils a major part of your usual daily diet.
Looking at what is on your plate at mealtimes is a simple way to start checking if you could eat more healthily.

Reshape your plate

Reshaping your plate to include at least three-quarters of wholegrains, vegetables (such as cabbage, cauliflower and broccoli, but not potatoes), fruit and pulses will help to provide your body with the nutrients it needs for good health.

It can also help to lower the calories in every meal and increase the fibre content. This means your meals will keep you feeling fuller for longer on fewer calories, which can help you maintain a healthy weight. It can also help you to eat less red meat, which is a key step in helping to prevent bowel cancer.

### Wholegrains, veg and fruit

- **Vegetables** (excluding potatoes) and **fruit** – fresh, frozen, dried and canned in water or natural juices all count towards your 5 A DAY
- **Pulses** – eg. lentils, peas and beans, count towards your 5 A DAY
- **Grains** and **cereals** – eg. rice, oats, pasta, bread, cous cous and unsweetened breakfast cereals. Opt for wholegrain varieties and limit highly processed foods, such as cakes and pastries
- **Starchy vegetables** – eg. potatoes. Try to not add fat, like butter or cream, and opt for boiled or steamed rather than roasted or fried in oil

### Meat and other protein foods

- **Red meat** – eating no more than three portions a week, or about 350–500g (cooked weight) and little, if any, processed meat can help protect against bowel cancer
- **Poultry** – eg. skinless chicken and turkey
- **Non-oily fish** – eg. cod and canned tuna (in spring water)
- **Oily fish** – eg. salmon, fresh tuna, trout, sardines and mackerel
- **Eggs, dairy and dairy alternatives** – eg. milk, yoghurt, cheese. Opt for reduced-fat, unsweetened varieties
- **Nuts** – eg. Brazil nuts and hazelnuts
- **Meat-substitutes** – eg. tofu, Quorn and pulses
Why wholegrains, vegetables and fruit can reduce your cancer risk

- Diets rich in fibre (e.g. wholegrains, vegetables and fruit) can protect against bowel cancer. This may be because fibre helps to move food more quickly through the bowel.

- There is also strong evidence that eating a fibre-rich diet, high in wholegrains, can protect against weight gain, overweight and obesity, which is linked with a reduced risk of 12 cancers, making it one of the most important ways to help protect against cancer.

- There’s evidence that vegetables and fruit can protect against cancers of the mouth and throat and digestive tract.

- Vegetables and fruit provide vitamins, minerals and other substances known as phytochemicals, which might help protect cells in the body from damage that may lead to cancer. Different types of vegetables and fruit contain different phytochemicals, so it is best to eat a variety every day.

What is a 5 A DAY portion?

One portion weighs roughly 80g*, equivalent to:

- 3 heaped tablespoons of vegetables (excluding potatoes), like carrots
- 3–4 heaped tablespoons of cooked or canned (in water) pulses, like beans, peas or lentils, or 1 tablespoon (30g) of dried pulses – pulses only count as one portion a day
- 1 cereal bowl of salad leaves, like lettuce
- 1 medium whole fruit, like an apple
- 2 small whole fruits, like plums
- 1 slice of large fruit, like melon
- 1–2 handfuls of berries, like raspberries or blueberries

* Fresh, cooked, frozen or canned (in water or fruit juice) all count.

The following only count as one portion a day because they can be quite high in sugar. Therefore, it’s best not to have more than:

- 1 heaped tablespoon (30g) of dried fruit, like sultanas or raisins
- 1 small glass (150ml) of unsweetened vegetable or fruit juice or smoothies
Top tips for fitting in your 5 A DAY

Stir in spinach. Add a large handful of fresh spinach to a piping hot bowl of soup or stew. The heat is enough to cook it and it doesn’t add to the washing up.

Breakfast boost. Add chopped banana or berries to your cereal or porridge; slices of pear or nectarine to low-fat natural yoghurt; or try grilled mushrooms, tomatoes and spinach as part of a healthier cooked breakfast.

Add more veg. If you’re cooking soups, sauces, chilli or stews from scratch, try chopping vegetables into very small pieces or blending them. Carrots, onions, mushrooms, swede, squash and peppers work well in Bolognese sauce. Beans and lentils can also be included in these foods.

Sunday roast. Instead of potatoes, try roasting sweet potatoes, squash or parsnips in a little oil. Unlike potatoes, they count towards your 5 A DAY.

Visit local markets and learn what is in season. Seasonal fruits and vegetables tend to be tastier and you’ll experience the feel-good factor from supporting your local farmers.

Fruity dessert. For a quick and easy pudding, try stewing or microwaving fruit like plums, apples (thinly sliced) or rhubarb with a sprinkle of cinnamon or drop of vanilla essence. Serve with low-fat natural yoghurt and toasted oats.

Keep biscuits, cakes, chocolate and crisps for occasional treats – swap your normal snack for a piece of fruit or vegetable sticks.

Eat a rainbow. As different types of vegetables and fruit contain a different mix of nutrients, try to eat a variety of different coloured vegetables and fruit every day.
Limit consumption of ‘fast foods’ and other processed foods high in fat, starches or sugars

Limiting these foods helps control calorie intake and maintain a healthy weight.

Managing your weight, long-term, is a balancing act: you need to balance the energy you put in – the calories from food and drinks – with the energy you burn through normal functions, such as your heart beating, and being active.

The best way to keep your calories in check is to eat lower calorie foods such as vegetables, fruit, pulses and wholegrains. Basing your meals on these types of foods will help you to feel fuller on fewer calories. It is also important to limit the amount of ‘fast foods’ you eat, such as chips and fried chicken, or other processed foods that are high in fat and sugar, like chocolate, crisps and biscuits. Even small portions of these foods contain lots of calories and they are often low in the vital nutrients your body needs.
Fast foods and cancer

Scientific evidence shows that eating too many high-calorie foods, particularly processed foods that are high in fat, starches or sugar, can cause overweight or obesity. Eating a ‘Western type’ diet (a diet that contains high amounts of sugars, meat and fat) also increases the risk of becoming overweight or obese, which in turn is a cause of many common cancers.

**Top tips to cut your calories:**

- **Read food labels.** As a guide, high-calorie foods contain more than about 225 calories (kcal) per 100g. These foods should be eaten sparingly. Some high-calorie foods are valuable sources of nutrients so can be eaten in small amounts. These include oily fish, nuts, seeds, cheese and avocados.

- **Trim the fat off meat,** or better still, opt for skinless poultry (chicken or turkey), or white fish.

- **Choose wholegrain breads, pasta, rice and unsweetened breakfast cereals.** They are higher in fibre so will help you feel fuller for longer.

- **Use lower fat dairy foods** such as semi-skimmed or skimmed milk, cottage cheese, light cream cheese and low-fat natural yoghurt (flavoured yoghurts often contain a lot of sugar).

- **Weighing out a portion of foods** you eat regularly, such as breakfast cereals, pasta and rice, is a good way to see how much you should be eating. Check the packet for a suggested portion weight.

- **Putting food on your plate in the kitchen** rather than having serving dishes on the table is a simple way to help stop you from over-eating.

- **Wait a few minutes before going back for seconds.** Leftovers don’t need to go to waste – most foods can be chilled and kept for lunch the next day.
Limit consumption of red and processed meat

Eat no more than moderate amounts of red meat, such as beef, pork and lamb. Eat little, if any, processed meat.

Meat, especially red meat, is often seen as the star of a meal but there are lots of good reasons for shifting this balance to focus on wholegrains, vegetables, fruit and pulses. Eating processed meats or having a diet high in red meat is a cause of bowel cancer. These meats can also be high in calories and fat, which can contribute to weight gain.

What is red meat?

The term ‘red meat’ refers to all types of meat from mammals, such as beef, veal, pork, lamb, mutton, horse and goat. This includes foods like steak, minced beef, pork chops and roast lamb.

Red meat is a good source of nutrients so can form part of a healthy, balanced diet, but we don’t need to eat it every day. Aim for no more than about three portions a week, which is about 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.

Red meat – how much a week?

Here’s an example of how you could have three meals a week containing red meat and still stick to less than 350g (cooked weight):

- **Spaghetti Bolognese with minced beef** – 140g (about 210g raw weight)
- **Small pork or lamb chop** – 75g (about 110g raw weight)
- **Roast beef, pork or lamb** – 90g (about 130g raw weight)
What is processed meat?

Processed meat has been smoked, cured or had salt or chemical preservatives added rather than having just been cooked or reformed (like most sausages and burgers). This includes bacon, salami, chorizo, corned beef, pepperoni, pastrami, hot dogs and all types of ham.

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

Red and processed meat, and cancer

- Haem, the compound that gives red meat its colour, can trigger the formation of cancer causing compounds that have been shown to damage the lining of the bowel, which may cause bowel cancer.
- Processed meat – as well as predominately being made from red meat – contains added nitrites and nitrates, which can also be digested to form compounds that are thought to cause cancer.

Top tips to cut down:

- **Eating smaller portions** (about the size of a deck of cards) means you can have red meat more often and still have no more than 350–500g a week.
- **Swap beef mince for turkey or even Quorn mince.** Even if you only swap half, you’ll cut calories and it’s just as filling. Boost the flavour with onion, garlic, herbs and spices.
- **Keep some days red meat-free.**
- **Cook with smoked paprika instead of chorizo** for the flavour kick.
- **Use alternatives to ham in your sandwiches.** Try chicken, hard-boiled eggs, canned tuna (in spring water), or low-fat houmous or cream cheese. Add rocket or spring onion to lift the flavour.
- **Make red meat go further** by adding some beans, chickpeas, lentils or mushrooms to bulk up stews, chillies and pasta sauces. This can also lower the calories in your meals and counts towards your 5 A DAY.
We often don’t think about drinks containing calories. However, there is strong evidence that regularly drinking sugar-sweetened drinks – such as cola, lemonade, cordials and squashes like blackcurrant juice drink – can cause weight gain.

If you regularly drink sugar-sweetened drinks, or drink them in large portions – which can be easy to do as they aren’t very filling, despite being quite high in calories – you are more likely to be consuming more calories than you burn. This can lead to weight gain, overweight and obesity which in turn can cause many cancers.

It is important to keep hydrated. Rather than drinking sugar-sweetened drinks, it’s best to drink water or unsweetened drinks, such as tea or coffee without added sugar. However, coffee and tea both contain caffeine, and it is recommended that we don’t have too much caffeine. For healthy adults, it’s suggested you have no more than the equivalent of four cups of brewed coffee a day, or less if you’re pregnant.

Sugar-sweetened drinks and cancer

Globally, we are still drinking a lot of sugar-sweetened drinks. Despite there being no evidence that sugar-sweetened drinks are a direct cause of cancer, this Recommendation is included because of the strong evidence linking their consumption with weight gain and the importance of body fatness as a cause of cancer.
What about fruit juice?

Natural fruit juice is a source of healthy nutrients but also contains a lot of sugar and has lost most of the fibre you’d get by eating the whole fruit so it is best not to drink more than one glass (150ml) a day. Similarly, milk provides nutrients like calcium, but also contains calories, so opt for unsweetened, skimmed or semi-skimmed versions.

Artificially-sweetened or ‘diet’ drinks and cancer

There is no strong evidence in humans to suggest that low-calorie, artificially sweetened drinks, such as diet soft drinks, are a cause of cancer. However, the evidence that these types of drinks help prevent weight gain, overweight and obesity is not consistent, and they are often quite acidic, which is bad for our teeth. Therefore, it is best not to drink them regularly or in large quantities.

Top tips to cut down:

► Swap sugary soft drinks for low-calorie versions, or better still, sparkling mineral water with a slice of lemon, lime or cucumber.

► Instead of a large glass of fruit juice, pour a small portion and dilute the juice with sparkling mineral water.

► Instead of sweet, frozen coffee drinks, try an iced Americano with a splash of milk.

► Swap chai tea lattes for a black tea with fresh mint leaves – you’ll be surprised how sweet it tastes.

► Rather than hot chocolate, mochas and coffees flavoured with syrups, opt for skinny versions of less milky hot drinks like cappuccinos (without chocolate), Americanos or tea to cut the calories and sugar.
Whether it’s a glass of wine with a meal, or a pint of beer at the end of a busy day, drinking alcohol may be a normal part of day-to-day life. And, while the immediate effects of drinking alcohol are obvious, we often don’t think about the longer-term impact on our health.

There is strong scientific evidence that all drinks containing alcohol are a cause of breast, bowel, mouth and throat, oesophageal, stomach and liver cancer. For some cancer types, alcohol is particularly harmful if you also smoke.

To reduce your cancer risk as much as possible, we recommend not drinking alcohol at all. If you do choose to drink alcohol, follow your national guidelines. In the UK, the guideline is to drink no more than 14 units a week, which is roughly equal to seven drinks, spread over at least three days.

What is a drink?
A drink contains about 10–15 grams of alcohol, so one drink is the same as:

- Half a pint of normal strength beer, lager or cider (3–5% ABV*)
- One 25ml measure of spirits such as vodka or whisky (40% ABV*)
- One small (125ml) glass of wine (12–13% ABV*)

* Alcohol by volume – the strength or amount of alcohol a drink contains
Alcohol and health

The latest evidence suggests that the benefits of drinking alcohol for heart health are less than previously thought. The benefits are seen at low levels of consumption (less than five units – or two and a half/three drinks – a week) and only in specific population groups, whereas a healthy diet and lifestyle can protect most people against both cancer and heart disease.

Alcohol and cancer

- Alcohol may make it easier for other dietary or environmental cancer causing compounds – ie. those in tobacco smoke – to get into the cells and cause DNA damage.

- When alcohol is broken down in the body, compounds are formed that can directly damage the DNA, which can then lead to cancer.

- Drinking alcohol can lead to liver cirrhosis (scarring), which is a known cause of liver cancer.

Alcohol and weight gain

Alcoholic drinks are surprisingly high in calories and offer few of the healthy nutrients your body needs.

- A pint of beer or lager contains about **170 calories** – similar to 3 chocolate chip cookies.

- A large 250ml glass of wine contains about **190 calories** – similar to a butter croissant.

Top tips for savvy drinking:

- Opt for the smallest serving size. Remember the standard serving size may not be the smallest. Avoid double measures of spirits.

- If you’re thirsty, have a glass of water or a low-calorie soft drink to quench your thirst.

- Alternate between alcohol and water or low-calorie soft drinks.

- Dilute alcoholic drinks – ideally with a low-calorie mixer. For example, opt for a small white wine spritzer with soda water rather than a large glass of wine.
Do not use supplements for cancer prevention

Aim to meet nutritional needs through diet alone.

Despite the promises made by some manufacturers, we advise against taking supplements to protect against cancer. Whole foods provide more than just vitamins and minerals. For example, they contain fibre, which is important for bowel health. For this reason, you should aim to meet your nutritional needs by eating a varied, healthy, balanced diet rather than using supplements.

What are supplements?

Supplements are a substance, often in tablet or capsule form. They are consumed in addition to the usual diet. Dietary supplements typically refer to vitamins or minerals, though other components of foods such as phytochemicals, lycopene (found in tomatoes), herbs, and plant materials such as ginseng, garlic and green tea may also be included.

Supplements and cancer

Some supplements can support our daily nutritional requirements but some are in high-doses that far exceed levels that would be consumed by eating foods with these nutrients in. There is strong evidence that some high-dose supplements can actually be harmful. As the effect of other supplements on cancer risk is unclear, it is best not to use them to protect against cancer.

Who may benefit?

Most people can meet their nutritional needs by eating a healthy, balanced diet although some authorities recommend that we should all take a vitamin D supplement. Some groups may benefit from taking other supplements, such as frail, older people with a poor appetite; women of childbearing age and new mothers; children under the age of five; people with darker skin and those who are not exposed to much sun.

People with bowel diseases, those who are being treated for cancer or who have survived cancer and not able to absorb enough nutrients from their diet may also benefit. In such cases, consult a doctor, dietitian or specialist nurse for advice.
For mothers: breastfeed your baby, if you can

Breastfeeding is good for both mother and baby.

Breastfeeding is a personal choice but there are many benefits for you and your baby if you choose to breastfeed.

If you are able to, then it is best to only give your baby breast milk for the first six months of life. After that, your baby will benefit if you continue to breastfeed to two years or beyond, alongside introducing other foods and water. Even if you can’t do this, any breastfeeding is beneficial for you and your baby, and the longer you breastfeed for, the longer the protection and benefits last.

What are the benefits for your baby?

Breast milk is the best start for your baby as it contains all the nutrients your baby needs for healthy growth and development. It helps protect your baby from infection and disease as well. Breastfeeding can also help you and your baby to bond.

Breastfed babies are also less likely to become overweight or obese children compared to babies who were not breastfed. Being overweight or obese in childhood tends to lead to being overweight or obese in adult life. As this is a cause of cancer, helping your baby to be a healthy weight when they grow up means you can help reduce their risk of developing cancer in the future.

What are the benefits for you?

As well as being good for your baby, breastfeeding may also protect against breast cancer by:

- Lowering the levels of some cancer-related hormones in your body.
- Getting rid of any cells in your breasts that may have DNA damage.
After a cancer diagnosis: follow our recommendations, if you can

Check with your health professional what is right for you.

More and more people are surviving a cancer diagnosis now, thanks to improved treatments. In England and Wales, half of all people diagnosed with cancer in 2010-11 are predicted to survive for 10 years or longer.

It’s unlikely that following the Cancer Prevention Recommendations would be harmful to people who have completed their treatment. Therefore, after treatment, it is encouraged, if appropriate and not otherwise advised by a health professional, to follow the general advice for cancer prevention. Following the Recommendations is also likely to reduce the risks of other diseases, like heart disease and Type 2 diabetes, which are important causes of ill health in people living beyond cancer.

Still receiving treatment?

If you are currently undergoing treatment for cancer, you’re likely to have special nutritional requirements. Our Eat Well During Cancer booklet has tips and advice to help you cope with common side-effects while also eating as healthily as possible.

You may also have special nutritional requirements if your treatment has affected your ability to eat or digest some foods – for example, if you have undergone a gastrectomy or a colostomy.

In these cases, it’s best to speak to a health professional, such as a doctor, dietitian or specialist nurse for advice on your nutritional requirements.

Find out more: wcrf-uk.org/eat-well-during-cancer
Cancer Prevention Recommendations

Be a healthy weight
Keep your weight within the healthy range and avoid weight gain in adult life

Be physically active
Be physically active as part of everyday life – walk more and sit less

Eat a diet rich in wholegrains, vegetables, fruit and beans
Make wholegrains, vegetables, fruit, and pulses (legumes) such as beans and lentils a major part of your usual daily diet

Limit consumption of ‘fast foods’ and other processed foods high in fat, starches or sugars
Limiting these foods helps control calorie intake and maintain a healthy weight

Limit consumption of red and processed meat
Eat no more than moderate amounts of red meat, such as beef, pork and lamb. Eat little, if any, processed meat

Limit consumption of sugar-sweetened drinks
Drink mostly water and unsweetened drinks

Limit alcohol consumption
For cancer prevention, it’s best not to drink alcohol

Do not use supplements for cancer prevention
Aim to meet nutritional needs through diet alone

For mothers: breastfeed your baby, if you can
Breastfeeding is good for both mother and baby

After a cancer diagnosis: follow our Recommendations, if you can
Check with your health professional what is right for you

Not smoking and avoiding other exposure to tobacco and excess sun are also important in reducing cancer risk.

Following these Recommendations is likely to reduce intakes of salt, saturated and trans fats, which together will help prevent other non-communicable diseases.
About World Cancer Research Fund

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.

Currently, one in two people born in the UK after 1960 will develop cancer at some point in their lives, but around 40 per cent of cancer cases could be prevented. By following our Cancer Prevention Recommendations, choosing not to smoke (or giving up smoking) and being safe in the sun, you will have the best chance of living a life free from the disease.

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

For the references used in this booklet or to request the information in large print, please contact us. If you have any comments or suggestions about any aspect of this booklet or our other health information, we would welcome your feedback.

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