



EATING WELL AND BEING ACTIVE FOLLOWING CANCER TREATMENT



World Cancer
Research Fund



World Cancer Research Fund

Our vision

World Cancer Research Fund (WCRF UK) helps people make choices that reduce their chances of developing cancer

Our heritage

We were the first cancer charity:

- To create awareness of the relationship between diet and cancer risk
- To focus funding on research into diet and cancer prevention
- To consolidate and interpret global research to create a practical message on cancer prevention

Our mission

Today World Cancer Research Fund (WCRF UK) continues:

- Funding research on the relationship of nutrition, physical activity and weight management to cancer risk
- Interpreting the accumulated scientific literature in the field
- Educating people about choices they can make to reduce their chances of developing cancer

WCRF UK is part of the World Cancer Research Fund global network, which consists of the following charitable organisations: The American Institute for Cancer Research (AICR); World Cancer Research Fund UK (WCRF UK); World Cancer Research Fund Netherlands (WCRF NL); World Cancer Research Fund Hong Kong (WCRF HK); World Cancer Research Fund France (WCRF FR); and the umbrella association, World Cancer Research Fund International (WCRF International)

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MOVING ON FROM CANCER

While you may feel a great sense of relief after you finish treatment for cancer, it is an illness that usually has a big impact both physically and mentally. Over time, most people regain a sense of normality. But recovering from the various treatments, managing other health risks and dealing with anxiety can be difficult and may take some time. A key step forward is taking a healthier approach to your diet and being more active every day. While this will mean different things to different people, whatever you can do will go a long way in helping you to feel better, have more energy and improve your overall health and wellbeing. It can also help to give you a sense of control.

By taking a cancer-prevention approach to your diet and lifestyle you may be able to help reduce the risks of cancer recurring or the development of a new cancer.

This is a growing area of research and more scientific studies are needed before we can fully understand the role of diet and lifestyle in the prevention of cancer after recovery from treatment for the disease.

Based on the available evidence, we recommend that, after treatment, cancer survivors should follow WCRF UK's Recommendations for Cancer Prevention.

That is, unless you are unable to or have been advised otherwise for health reasons by your doctor, dietitian or specialist nurse.

This advice may also help reduce your risk of developing other chronic diseases, such as heart disease and diabetes.



This WCRF UK booklet provides diet and lifestyle guidance for people who have finished and recovered from treatment for cancer. If you are unsure whether you are at this stage, it is best to check with your doctor.

If able to do so, and unless otherwise advised by an appropriately trained health professional, those who have finished cancer treatment should follow WCRF UK's Recommendations for diet, healthy weight, and physical activity.



WCRF UK's Recommendations for Cancer Prevention

This publication explains Recommendation number 10.

1. Be as lean as possible without becoming underweight
2. Be physically active for at least 30 minutes every day
3. Avoid sugary drinks. Limit consumption of energy-dense foods (particularly processed foods high in added sugar, or low in fibre, or high in fat)
4. Eat more of a variety of vegetables, fruits, wholegrains, and pulses such as beans
5. Limit consumption of red meats (such as beef, pork and lamb) and avoid processed meats
6. If consumed at all, limit alcoholic drinks to 2 for men and 1 for women a day
7. Limit consumption of salty foods and foods processed with salt (sodium)
8. Don't use supplements to protect against cancer

Special Population Recommendations

9. It is best for mothers to breastfeed exclusively for up to 6 months and then add other liquids and foods

10. After treatment, cancer survivors should follow the Recommendations for Cancer Prevention

And, always remember – do not smoke or chew tobacco



If you are underweight, have experienced significant weight loss during your treatment, had surgery affecting your digestive system, have swallowing difficulties, bowel problems or any other difficulties eating a normal diet, you should ask your doctor, dietitian or specialist nurse if these Recommendations are suitable for you.



UK CANCER SURVIVOR RATES CONTINUE TO INCREASE

More and more people are now surviving cancer thanks to improved treatments and cures. There are now around two million cancer survivors in the UK.

The science behind WCRF UK's advice

Thanks to scientific research, cancer is becoming an illness that, in many cases, may be curable or treatable over many years. Further research is needed to help us understand more fully how we can prevent first cancers. It is also important to increase our knowledge of how to reduce the risk of cancer recurring and of a new cancer developing.

The importance of our Second Expert Report

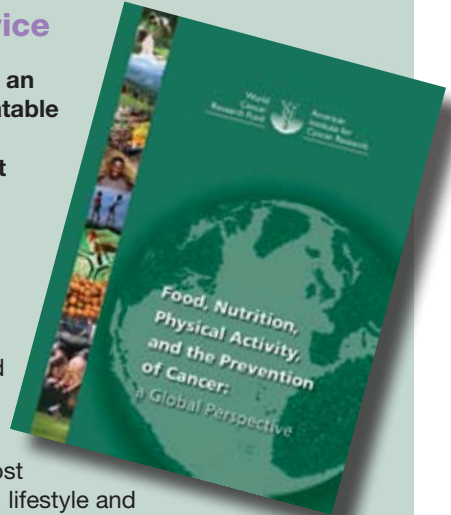
In 2007, WCRF/AICR published the landmark Second Expert Report: *Food, Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective*.

The main focus of the Report was to carry out the most comprehensive review of scientific evidence into diet, lifestyle and cancer prevention to date. In total, about 200 scientists and other experts from around the world were involved in compiling the Report. Nine independent teams of scientists from universities and research centres reviewed research relating to 17 different types of cancer.

The findings of more than 7,000 of the top studies in this field were assessed by an Expert Panel of 21 scientists, supported by observers from the United Nations and other international organisations. They made judgements and developed the most up-to-date public health goals and recommendations for people who have not already been diagnosed with cancer.

In addition to this, they reviewed the available evidence on cancer prevention in people who had been previously diagnosed with cancer.

This is a newer area of study and, at present, limited research is available. But these preliminary results were an important step forward and allowed the Expert Panel to give guidance on cancer prevention for people who have survived cancer.



The Recommendations

WCRF UK's Recommendations for Cancer Prevention are all based on the conclusions of the Expert Panel that certain foods, drinks and lifestyle choices protect against, or lead to the development of, one or more types of cancer.

Each of these factors was graded according to the strength, quality and quantity of the scientific evidence. The Expert Panel rated the likelihood that a particular factor causes or protects against cancer as 'convincing' or 'probable'; or, if there was not adequate evidence, as 'limited – suggestive' or 'limited – no conclusion'. The Recommendations in this booklet are based on conclusions that were judged to be convincing or probable.

The available evidence relating to cancer prevention in people who had been previously treated or who were undergoing treatment for cancer led the Expert Panel to make a recommendation for cancer survivors. They advised that cancer survivors should receive care from an appropriately trained health professional, and that, in most cases, they should also follow the general Recommendations for Cancer Prevention. At present, this is the best advice available for cancer survivors. As more research is carried out, we will learn more about the best diet and lifestyle choices to make if a person has had cancer.

Future research

Following the findings of the Second Expert Report, investing in further research on how diet and physical activity can help improve the quality of life of cancer survivors, as well as reduce risk of cancer recurrence, has been identified as a key research priority for WCRF UK. Any new findings will be made available to the public as soon as possible.



Choosing a healthy diet and lifestyle to help prevent cancer

To help you make the changes needed to reduce the risk of further cancer, WCRF UK's Recommendations have been simplified into three areas:

- ◆ **Aim to be a healthy weight throughout life**
- ◆ **Choose mostly plant foods, limit red meat and avoid processed meat**
- ◆ **Be physically active every day in any way for 30 minutes or more**

And always remember – do not smoke or chew tobacco.



Informed choices

Everyone is different when it comes to their usual diet and lifestyle. After treatment for cancer, some people will want to make quite dramatic changes to their lifestyle. Others may prefer to take a more gentle approach, working simple changes into their normal, regular routines.

If you do decide to make any changes, it is important to make informed decisions and have the information at hand to help you make the healthiest choices. This can be very difficult as there are a number of remedies and diet books that promise the secrets to beating and preventing cancer. Some advise you to cut out key food groups, and many suggest you take lots of supplements.

As you think about your options, it is important to remember that the Second Expert Report found in its extensive review that diet and lifestyle approaches to help prevent cancer do not have to be extreme. They do not require you to cut out key food groups, consume special foods, take vitamin supplements or spend a lot of money.

It's all about reviewing what you usually do and looking at whether it would be helpful to reshape some of your habits and everyday patterns. WCRF UK's Recommendations provide lots of choices and options, all of which are designed to work around you and fit into your everyday routine.

Starting out

When contemplating what lifestyle improvements you could make, it might help to start by filling in a food and activity diary.

Writing down your usual dietary intake often provides valuable insights into changes that may be helpful, and what you might need to do to make these changes more manageable.

For example, if you usually skip breakfast you might decide this is an important meal to reintroduce. Breakfast provides a great opportunity to eat healthily because there is a wide range of wholegrain breakfast foods that you can top with fresh or dried fruit.





Use this diary to jot down all the foods and drinks you consumed and all of the physical activity you did yesterday. You can photocopy the page if you want to record more than one day.



MY FOOD, DRINK AND ACTIVITY DIARY

Foods and drinks consumed

Activity

*E.g., 9.30 am – two slices of toast with jam,
cup of tea, glass of orange juice*

E.g., 9.45 am – 5 min. walk to shops

Are there other regular foods, snacks or types of activity that you usually include?

Are there any times of the day when you find it difficult to manage your appetite?

How many days a week do you drink alcohol?

How much alcohol do you usually drink in a day?

As you read about **WCRF UK's Recommendations** in this booklet, you can look at your food and activity diary to see how you can incorporate some of the suggestions we make.

Many of us find it difficult to change our habits, even if we know they are not as healthy as they could be. It's a good idea to make small, gradual improvements to your diet and lifestyle. Recording these and setting out goals can help you build on your progress. Professional advice may also be helpful. Thinking about how you can measure your achievements and what these will mean to you if you succeed can be very motivating.



Start by writing down three realistic goals and how you might achieve them. Once these have been reached, set some more goals.

E.g., eat an extra portion of fruit and an extra portion of vegetables every day – add some berries to my cereal at breakfast time and eat a side salad with dinner.

Goal 1

Goal 2

Goal 3



Registered dietitians can help

A registered dietitian is the health professional in the UK who is most qualified to help you with any concerns you have about your diet or nutritional needs. Dietitians can be found in NHS hospitals, some GP clinics and there are a number who also work privately. If you would like to see a registered dietitian you can ask your doctor for a referral or visit the British Dietetic Association website at www.bda.uk.com for more information.

RECOMMENDATION 1:

Be as lean as possible without becoming underweight



Managing your weight

Maintaining a healthy weight is important for general health as well as reducing cancer risk. If you are overweight, it is important not to feel overwhelmed by what you think is your ideal target weight. If you need to lose excess weight, any loss is better than none. If you can at least manage around five to ten per cent total body weight loss this will result in some real benefits to your health. Aim to gradually lose weight by eating a healthy diet and being more active – ‘quick fix’ or ‘fad’ diets are not the answer. A weight loss target of a half to two pounds a week is a realistic goal and one that you can achieve in a healthy way. Once you have lost the weight you need to, it’s important to continue to eat healthily and be active to help you maintain your healthy weight throughout life.

If you are underweight it is important to speak to your doctor, dietitian or specialist nurse who will be able to give you advice on appropriate ways to gain weight.





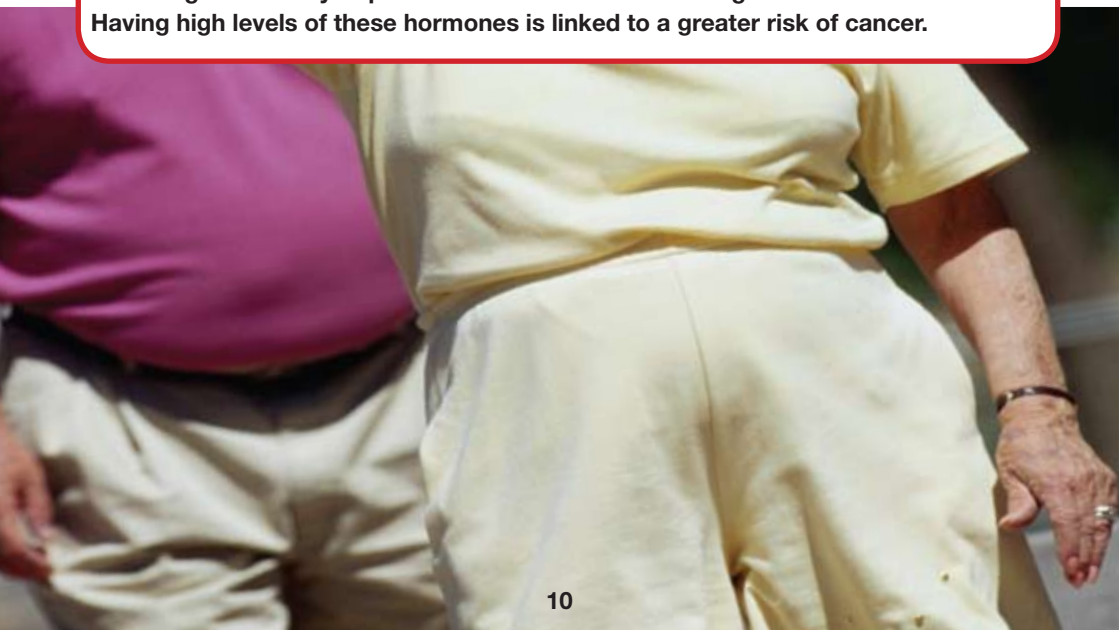
Why body weight is important in cancer prevention

A healthy body weight has been found to help reduce the risk of bowel, postmenopausal breast, oesophageal, kidney, pancreatic and endometrial (womb) cancers. There is also increasing evidence that working towards or maintaining a healthy weight is particularly important for women who have had postmenopausal breast cancer.

Body fatness and risk of cancer

Scientists believe there are several reasons for the link between overweight, obesity and cancer. One example is the relationship between excess fat and the hormonal balance in the body. Research has shown that fat cells release hormones such as oestrogen, which increase the risk of cancers such as breast cancer.

Studies have also shown that fat, particularly if it is stored around the waist, encourages the body to produce substances known as 'growth hormones'. Having high levels of these hormones is linked to a greater risk of cancer.



Finding out if you are a healthy weight

Measuring your BMI

Body Mass Index (BMI) is a measure that helps you to see if you are an appropriate weight for your height.

To measure your BMI:

1. Work out your weight in kilograms (kg) and your height in metres (m).
2. Work out the square of your height.
3. Divide your weight by your height squared.

This figure is your BMI.

For example, here is the calculation for a person who is 1.7m (5'7") tall and who weighs 70kg (11 stone):

Weight: 70

Height²: (1.7 x 1.7) = BMI of 24.2

Results

Less than 18.5	Underweight
18.5-24.9	Healthy weight
25-29.9	Overweight
30 or more	Very overweight or obese

Visit our website, www.wcrf-uk.org, to calculate your BMI online.

**Note: BMI may not be a suitable indicator for athletes, elderly people, pregnant women, children, or adults less than 1.5m (5 feet) tall.*

Measuring your waist

Another good way of checking if you're a healthy weight is to measure your waist.

1. Place a tape measure around your waist half way between the bottom of your ribs and the top of your hip bone.
2. Make sure the tape is snug but doesn't compress your skin.
3. Measure after breathing out.

As a guide, a healthy waist measurement is less than 80cm/31.5" for women and less than 94cm/37" for white and black men. For Asian men, a healthy waist measurement is less than 90cm/35".

This may seem easier to achieve when you are younger, but it's important to try to be as lean as possible around the waist at any age – try to do your best!



If you are underweight or have lost weight during your cancer treatment, you may need to boost your dietary intake to work yourself back into the healthy weight range. If you find this difficult, it is important to talk to your doctor, dietitian or specialist nurse.

RECOMMENDATION 2:

Be physically active for at least 30 minutes every day



Physical activity after cancer treatment

There is no doubt that doing regular activity and exercise can help to improve strength and mobility and manage weight. It can also help with managing fatigue and can help you to cope better emotionally. Importantly, it may also help reduce the risk of cancer recurrence or the development of a new cancer.

During your treatment you might have become less active than normal due to side effects such as tiredness or possible risk of infection.

Once you have recovered and your specialist gives you the 'go-ahead' you can start to build up your activity levels. It's best to aim to do at least 30 minutes a day of moderate physical activity. The experts agree that in addition to the many general health benefits – both physical and emotional – regular activity may help reduce the risk of bowel, breast and endometrial (womb) cancer.

Everyone will have a different starting point in terms of the activity they are currently doing. Try to build on this over time by gradually increasing the amount of activity you do. If possible, once you have reached the goal of 30 minutes per day, work towards achieving 60 minutes. The more activity you do (within reason), the better for your health. Also, being active is key to controlling your weight and balancing the energy you take in through foods and drinks.

Visit www.wcrf-uk.org and download publications for some physical activity ideas.

15 great reasons to be active after your cancer treatment

- 1 Helps reduce future cancer risk
- 2 Burns calories and helps control your weight
- 3 Helps reduce fatigue
- 4 Boosts your immune system
- 5 Helps rebuild muscle
- 6 Improves your shape
- 7 Strengthens your bones and reduces risk of osteoporosis
- 8 Helps improve flexibility and strength
- 9 Improves your mobility
- 10 Reduces risks of other health problems such as heart disease, diabetes and high blood pressure
- 11 Keeps you alert
- 12 Improves your mood
- 13 Helps reduce anxiety and depression
- 14 Helps alleviate menopausal symptoms
- 15 Helps you relax



WORKING OUT A PERSONAL ACTIVITY PLAN

Whatever your starting point, you can try to be more active. This can be difficult if you are recovering from your treatment or have not been active for some time. It's best to start gently and build up gradually. The plan below helps you to work out what you could do and how you can achieve it. The first step is to change the way you think about moving then work to gradually increase the amount of activity you do each day.

1 Think of movement as an opportunity, not an inconvenience.

- ◆ I know I will feel better after I do it
- ◆ It will help me regain my strength
- ◆ I will no longer feel breathless after walking up the stairs

What other ways can you find to think about movement positively?

2 Be active every day in as many ways as possible.

- ◆ Take the stairs instead of the lift
- ◆ Hide the remote control
- ◆ Take the first parking spot rather than trying to find one right at the entrance
- ◆ Turn off the TV to reduce sedentary (inactive) behaviour

How can you build more activity into your everyday life and routine?

3 Include at least 30 minutes of moderate-intensity physical activity (e.g., brisk walking) on most, and preferably all, days.

- ◆ Can I walk to the shops to pick up some of my groceries?
- ◆ Can I walk to the station rather than taking the bus?
- ◆ Can I ride a bike rather than use public transport or a car?

What can you do today to work towards your 30-minute goal?

As you become more active why not try other forms of activity, such as yoga, Pilates, swimming, dancing, gardening, golf or even some vigorous gardening or housework.

RECOMMENDATION 3:

Avoid sugary drinks. Limit energy-dense foods



A new approach to maintaining a healthy weight

The only proven way to manage your weight over the long-term is to balance the energy you take in through food and drinks with the amount of activity you do. Fad diets or quick-fix options are not the answer. The best way to manage your weight is to eat more foods that are lower in energy density such as vegetables, fruits, pulses and wholegrains, and to also be active every day.

By making an effort to regularly fill up on these foods, you will find it easier to manage your hunger levels. Try to limit your intake of foods with higher energy density, such as high-fat and high-sugar processed foods including crisps, fried takeaways, biscuits, sugary drinks and other types of snack bars. They will not satisfy your hunger unless you consume them in great quantities and they do not provide you with the vital nutrients your body needs. Try to save these foods for occasional treats instead.

If you are underweight, or don't have a big appetite, it's still important to aim to stay within the healthy weight range. You can speak to your doctor, dietitian or specialist nurse who can advise you about the best way to gain weight – this may mean including more medium or high energy-dense foods in your daily diet.





What are energy-dense foods?

Becoming familiar with the energy density of some of your regular foods will help you to review your choices to help you maintain or reduce your weight.

Energy density refers to the number of calories a food provides based on a per 100g or per 100ml serving, and this is usually found on the label of packaged foods. Other clues that are helpful in determining the energy density of a food are the amount of fat and/ or sugar provided. See our helpful guide on page 17 to help you understand the energy density of a food.

It's important to remember that some energy-dense foods are healthy and can be a valuable part of a balanced diet. These include dried fruit, nuts, some oils and oily fish.

Sugary drinks and weight gain

The Expert Report found that sugary drinks contribute to weight gain if consumed regularly due to their high calorie content. Many of us are consuming these drinks frequently, and often in 'super-sizes' too. They are easy to drink in large quantities but don't make us feel full, even though they are quite high in calories. Sugary drinks include fizzy drinks like cola and lemonade, as well as cordials and squashes like blackcurrant juice drinks. We should try to avoid these – water is always the best choice. Unsweetened tea and coffee are also preferred choices (it's best to limit coffee to no more than four cups a day).

Natural fruit juice counts as one of our recommended 5 A DAY portions of vegetables and fruits, but it does not contain as much fibre as whole fruit and also has a lot of sugar, so it's best not to drink more than one glass a day.

Low energy-density eating



Meal ideas

Breakfast

- Whole oats or natural muesli with skimmed milk, or wholegrain toast with a scrape of margarine
- Fresh fruit e.g., a banana or pear

Mid-morning snack

- Hot drink with skimmed milk
- Fresh fruit e.g., two small plums or nectarines

Lunch

- Salmon, tuna, an egg or some slices of lean chicken
- Lots of salad (e.g., rocket, tomato, grated carrot, cucumber)
- Wholemeal pitta or wholegrain bread roll
- Glass of water



Afternoon snack

- Slice of malt loaf or reduced-fat houmous and vegetable sticks
- Hot drink with skimmed milk
- Low-fat yoghurt

Dinner

- Grilled fish or chicken or a lentil burger
- Brown rice, sweet potato or wholemeal pasta
- Lots of different coloured vegetables (e.g., broccoli, carrots, cauliflower)
- Berries or stewed fruit and a low-fat rice pudding

And remember to keep yourself hydrated by drinking plenty of water throughout the day.



Look at your food labels

Reading food labels is a helpful way to identify which foods can help you better manage your weight and reduce your intake of fat, sugar and salt.

What to look for on a food label

What is	Energy Density kcal per 100g	Fat g per 100g	Saturates g per 100g	Sugar g per 100g	Salt g per 100g
HIGH	OVER about 225-275 kcal	OVER 20g	OVER 5g	OVER 15g	OVER 1.5g
MEDIUM	BETWEEN about 100-225 kcal	BETWEEN 3g and 20g	BETWEEN 1.5g and 5g	BETWEEN 5g and 15g	BETWEEN 0.3g and 1.5g
LOW	BELOW about 60-150 kcal	BELOW 3g	BELOW 1.5g	BELOW 5g	BELOW 0.3g

(Adapted from FSA Food Shopping Card).

Ways to lower the energy density of your diet

- ◆ Ensure you include at least five portions of vegetables and fruits daily.
- ◆ Use lower-fat dairy foods such as semi-skimmed or skimmed milk, cottage cheese and low-fat yoghurts.
- ◆ Do not cut out carbohydrates – instead choose the wholegrain varieties that are less processed.
- ◆ When eating meat, choose the leanest cuts and trim as much fat away as possible before cooking (see Recommendation 5 on page 21).
- ◆ Go for natural and unprocessed foods such as whole oats, bran-based cereals, wholemeal breads, fruit, vegetables, cous cous, quinoa, brown rice and wholemeal pasta.
- ◆ Keep biscuits, cakes, chocolate, snack bars and crisps for occasional treats rather than a daily snack.
- ◆ If you eat out regularly choose salad-based starters (with a little low-fat dressing) or vegetable soup, main courses such as grilled fish with plenty of vegetables, and resist the temptation to order fries and high-fat puddings.
- ◆ Watch your portion sizes. Chew your food well and allow yourself at least 10 minutes before you fill your plate up with seconds. It takes time for your brain to register that you have eaten and feel full.

Some foods such as nuts, seeds and vegetable oils are high in energy density but because they provide essential fats they should be included in your diet in small amounts.

RECOMMENDATION 4:

Eat more of a variety of vegetables, fruits, wholegrains, and pulses such as beans



This Recommendation emphasises the importance of looking at the overall nutritional quality of your diet. Reshaping your plate to include more plant foods such as vegetables, fruits, wholegrains and pulses in addition to reducing the amount of red meat has been identified as a key step in helping to prevent cancer.

The role of vegetables, fruits and other plant foods in cancer prevention

Plant foods like vegetables, fruits, wholegrain cereals, pulses such as beans and lentils, nuts and seeds, as well as fresh herbs and spices, are all foods that help your body to defend itself against cancer.

Firstly, they are foods that have a lower energy density (except for nuts and seeds) and are high in dietary fibre which can help you manage your weight. They also tend to be good sources of important vitamins, minerals and other substances known as phytochemicals that can all work to help protect the body against the processes that can lead to cancer. There are over 100,000 different phytochemicals in plant foods and we are still learning how they work to help prevent cancer.

You gain the best protection by eating a variety of plant foods every day, including at least five portions of different coloured vegetables and fruits. Aim for a mix of colours in your shopping basket. Try:

- ◆ **green family** (e.g., courgettes, beans, broccoli, asparagus, kiwi fruit).
- ◆ **blue/purple family** (e.g., blueberries, aubergine, blackberries, plums).
- ◆ **red family** (e.g., red cabbage, tomatoes, red apples, berries, beetroot).
- ◆ **orange/yellow family** (e.g., orange and yellow peppers, apricots, carrots, oranges, peaches, lemons, sweetcorn).
- ◆ **white family** (e.g., onions, white cabbage, cauliflower, mushrooms).

Pulses, herbs and spices are also a great way to enjoy some of the health-boosting properties of plant foods.



What counts as a 5 A DAY portion?

One portion weighs roughly 80g (3oz), equivalent to:

- 3 heaped tablespoons of vegetables like carrots (raw, cooked, frozen or tinned all count)
- 3 heaped tablespoons of beans or pulses like lentils (only counts once a day)
- 1 cereal bowl of salad vegetables like lettuce
- 1 medium-sized piece of fruit, like an apple
- 2 small whole fruits like plums
- 1 slice of large fruit like melon
- 1-2 handfuls of berry fruits like raspberries or grapes
- 1 small glass of pure fruit or vegetable juice like orange juice (only counts once a day)



Top tips for enjoying more vegetables, fruits, pulses, herbs and spices

- ◆ Snack on carrots and other crudités before dinner to help curb your appetite. Make coleslaw with cabbage and grated carrot and a little low-fat dressing rather than mayonnaise. Enjoy fresh salad in a sandwich or as a side dish.
- ◆ Store your vegetables and fruits correctly – salad vegetables and some fruits are best stored in the fridge and others in a cool place – and try to use them up before they go off. You could add a few extras when cooking a hearty soup or stew, or use overripe fruit in your blender to make a smoothie.
- ◆ Cut your vegetables into larger chunks and avoid any unnecessary peeling or slicing.
- ◆ Minimise the amount of water you add to your vegetables when cooking them. Try cooking them in a microwave or steaming them, rather than pre-soaking or boiling them in large volumes of water.
- ◆ Try not to overcook your vegetables. Crunchy vegetables retain more nutrients than those that are overcooked.

What if you do not like vegetables and/or fruits?

There is no doubt that a healthy diet includes at least five portions of vegetables and fruits a day, alongside a range of other plant foods. While for some people this is no trouble, there are many who have, over the years, developed an aversion to these foods and simply do not eat enough vegetables and fruits on a regular basis.

The following suggestions may tempt you into trying or experimenting with some different ways to work up to the recommended 5 A DAY. Ideally, we should aim for three portions of vegetables and two portions of fruit each day.

- ◆ Start by eating more of the varieties you might already enjoy. It is better to eat two or more apples a day than nothing.
- ◆ Experiment with dried fruits, such as dates, prunes and raisins. You can add these to cereal in the morning or to a low-fat pudding. You can also try stewed fruits, such as pears, apples or rhubarb.
- ◆ Try a hot cup of vegetable soup as a snack or for lunch. If you want to try something different, there are Asian broth soups that use a wide range of Chinese greens.
- ◆ Blend vegetables and fruits into soups and sauces. Tomatoes, carrots, onions, mushrooms, olives, and courgettes go well in a Bolognese sauce.
- ◆ Try roasting a selection of plant foods, such as sweet potatoes, squash and parsnips in a little olive oil.
- ◆ Visit local markets and learn what is in season. Locally grown produce is often fresher and more delicious.
- ◆ Include a freshly squeezed juice once a day, such as carrot, tomato or apple.
- ◆ Enjoy a fresh fruit smoothie. Blending some fruit with some semi-skimmed milk and yoghurt can be a real treat.
- ◆ Remember that a portion of pulses (like beans or lentils) can count as one of your 5 A DAY, once a day.

If you are still struggling then perhaps you can just tell yourself that you need to work on how you think about vegetables and fruits. Deciding to try different types and actually learning to enjoy these is a good start.



RECOMMENDATION 5:

Limit consumption of red meats (such as beef, pork and lamb) and avoid processed meats



Enjoy your meals with less meat



One of the key Recommendations to help prevent cancer is to limit your intake of red meat and avoid processed meat such as ham, salami and bacon.

This doesn't mean that you need to give up on animal foods, as fish and lean poultry choices are not associated with an increased cancer risk. Eating oily fish also helps to provide your body with omega-3 fatty acids which can boost immunity and help protect against heart problems.

How much red meat should I have?

Experts recommend that to reduce the risk of cancer you should have no more than 500g (cooked weight) a week of red meat such as beef, pork or lamb. This is about 700-750g raw weight, as meat usually loses about a third of its weight when it is cooked.

So how can you manage that? Firstly, look again at your food diary. How often are you eating red meat and what are your normal portion sizes? What proportion of your plate does the meat normally take up?

If you eat too much red meat it is best to start by reducing the quantity of meat you cook, and instead of red meat try lean poultry or fish, or even a bean dish. The portion to aim for is about the size of your palm. Visit www.wcrf-uk.org for more healthy alternatives to processed meats and to see our full range of publications and recipe books.

The easy way to visualise this is to divide your plate into thirds. Ideally you want your plate to be made up of two-thirds or more plant foods (vegetables, wholegrains and pulses) and one-third or less with meat or fish.

$\frac{1}{3}$ (or less) animal foods



$\frac{2}{3}$ (or more) vegetables, wholegrains and pulses

Red meat

Average cooked portion sizes

- | | |
|--|------|
| • Medium portion of roast beef, lamb or pork | 90g |
| • Pork or lamb chop | 75g |
| • Quarter-pounder beefburger | 90g |
| • Medium steak | 145g |

Red meat refers to beef, pork, lamb and goat from domesticated animals.

Processed meat refers to meat preserved by smoking, curing or salting, or the addition of chemical preservatives, including those contained in processed food.

RECOMMENDATION 6:

If consumed at all, limit alcoholic drinks to 2 for men and 1 for women a day



Limit or avoid alcohol

Having a few drinks with family and friends is a social habit for many people which may be difficult to leave behind. It is also a common belief that having a glass of wine every day is good for your health, but for most of us this is not the case. Some evidence suggests that small amounts of alcohol may have a protective effect on the heart, but the benefits only outweigh the risks in those particularly at risk of heart disease, such as men aged over 40 and postmenopausal women.

The Expert Panel found that drinking alcohol, irrespective of the type, is a cause of cancer, particularly cancers of the mouth, throat, oesophagus, bowel, liver and breast. Furthermore, alcohol is particularly high in calories and so cutting down your alcohol intake is a simple way to help you control your weight, which is in itself an important factor in helping to reduce the risk of cancer recurrence.

WCRF UK's Recommendation is that if alcoholic drinks are consumed at all, they should be limited to two for men and one for women a day.

How much is a drink?

One drink is roughly:

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

*Alcohol by volume

Alcoholic drinks vary quite a lot in terms of their size or strength, so a good rule of thumb is to choose the smallest serving size available, and to aim to stop after two drinks if you are a man, or one drink if you are a woman.





How can I drink less alcohol?

- ◆ Drink slowly.
- ◆ Wait until your glass is empty before you allow it to be topped up as this will help you keep count of how many drinks you have had.
- ◆ Have wine spritzers (wine and soda or mineral water).
- ◆ Ensure you have a few alcohol-free days during the week, especially if you are a regular drinker.
- ◆ Avoid binge drinking.
- ◆ Alternate alcoholic drinks with water or non-alcoholic drinks.
- ◆ Order single spirits in a tall glass filled with soda water or a diet soft drink.
- ◆ Avoid eating salty snacks as they make you thirsty and encourage you to drink more.

If you think you have a problem with your alcohol consumption, your GP will be able to provide advice and support.

RECOMMENDATION 7:

Limit consumption of salty foods and foods processed with salt



Hidden salt

Salt is a preservative and it is also used to season food. Most of the salt in our diet (around 75 per cent) comes from processed foods, such as bread, cereals, snacks and ready meals. As well as being directly linked to high blood pressure, research shows that salt and salt-cured foods are probably a cause of stomach cancer.

How to shake off the salt

The secret to weaning yourself off salt is to do it slowly and allow your palate to adjust. Aim to eat more home-made meals – this way you have more control over the ingredients. Taste buds change over four to six weeks, so if you try it for a few weeks it's likely that you will learn to enjoy the natural flavours of real food. Adding other flavours such as garlic, ginger, chilli, lemon, orange, natural herbs and spices will help. Remember to check food labels, particularly if you buy processed foods as these tend to contain more salt.



RECOMMENDATION 8:

Don't use supplements to protect against cancer



Dietary supplements are not recommended for cancer prevention

Supplements do not replace the natural benefits of real, whole foods. The scientific evidence to date has shown mixed results, with studies showing that high-dose supplements can both increase and decrease the risk of cancer. Therefore, it is not safe to recommend that people take supplements to reduce cancer risk, as this can have unpredictable and harmful effects. There is, however, strong evidence to show that the best way to get enough vitamins and minerals comes from eating a healthy diet. This is why we recommend that for cancer prevention, people should eat a variety of foods to gain all the nutrients they need instead of taking supplements.



Use of dietary supplements

Dietary supplements are often taken by people who have survived cancer, in the belief that they will provide beneficial nutrients. Many supplements are also widely promoted to offer additional health benefits that include helping to reduce the risks of cancer recurring. Some types of supplements are available in high doses, while others such as multivitamins may contain lower amounts of a range of nutrients – it can be difficult to tell if a supplement is a high or low dose. Although there is a wide range of doses and different types of supplements, including vitamins, minerals, herbs, antioxidants and fatty acid supplements, the Expert Panel reviewed the available evidence and agreed that you gain the best protection from cancer by eating a healthy diet and being active, rather than by taking a supplement.

However, some groups of people may benefit from taking supplements. For example, it can sometimes be useful to take a balanced multivitamin supplement if you have a poor appetite. More advice on when to take supplements is given on the next page. You can find out more about the benefits of whole foods on page 18.

When dietary supplements are advisable

In certain cases your doctor or other trained health professional may advise you to take supplements for other health reasons. Very young children, women of child-bearing age, frail older people and those who are not regularly exposed to sunlight or who are of Asian origin may benefit from taking particular supplements. Your doctor will be able to give you more advice about this.



While dietary supplements are not recommended as a way to protect against cancer, some people, such as those who are being treated for cancer, may not be getting enough of a particular nutrient, or might not be able to manage a normal diet. In such cases, a doctor, dietitian or specialist nurse will be able to provide advice and may suggest you take a supplement. Every situation is different, but it is always best to follow the advice of an appropriately trained health professional.

FREQUENTLY ASKED QUESTIONS



Should I only eat organic foods?

The term organic is used to describe foods grown or processed without pesticides or herbicides, unless they have been approved for organic production. Organic food producers must be registered and approved by an official body. Some studies have found higher levels of some nutrients in organic foods, for example, vitamin C, but the results are not consistent.

More important than whether a food is organic or not is making sure you include a variety of plant foods in your diet. You are better off eating a corn cob that isn't organic than eating organic French fries! Eating the recommended servings of vegetables and fruits will benefit your health whether they are organic or not. There is no current evidence to suggest that organic produce can help reduce the risk of cancer more than non-organic.

It's best to wash all fruits and vegetables well before eating.



Will eating less fat lower my risk of cancer recurrence?

There is no strong evidence of a direct link between fat intake and an increased cancer risk. But, as high-fat consumption can contribute to overweight and obesity, which are strong risk factors for several cancers, you should limit your intake of high-fat foods.

Should I juice vegetables and fruits?

It is much better to eat whole vegetables and fruits than to juice them because they contain fibre as well as less concentrated amounts of sugar. Some of the natural goodness may be lost in juicing, as some vitamins deteriorate quickly once exposed to air or light, or after preparation such as cutting or chopping.

It's easier to consume excess calories from juices than whole vegetables or fruit. Limit yourself to one glass of juice as part of your 5 A DAY. After this, it's best to drink water and unsweetened tea, coffee or soft drinks to quench your thirst.



Should I eat dairy products?

The Expert Panel found that foods rich in calcium, such as milk, may protect against bowel cancer, while other evidence showed that these foods may increase the risk of prostate cancer. Due to the conflicting evidence, WCRF UK has not made any recommendations about dairy foods, but has made this a priority area for future research. Dairy foods are an important source of calcium and other nutrients and so should be included in a healthy diet. Calcium is required to maintain good bone health throughout life. As some dairy foods are high in fat, choose lower-fat varieties.



Is soy good if I have had breast cancer?

At the moment, there is no good evidence on whether soy helps or harms in relation to breast cancer risk. As part of a healthy diet, moderate intakes of soy foods (such as soya milk or tofu) are considered perfectly acceptable.

However, soy or phytoestrogen supplements should be avoided, particularly after treatment for breast cancer.

Does sugar feed cancer?

No. Sugar intake has not been shown to directly increase risk or progression of cancer. However, sugars (including honey, raw sugar, and brown sugar) and beverages containing sugar (soft drinks and fruit drinks) can contribute a substantial number of calories to your diet and so can promote weight gain. Being overweight or obese increases the risk of several cancers so it is important to maintain a healthy weight by eating a balanced diet and being physically active.

Most foods and beverages that are high in sugar do not contribute many vitamins and minerals to your diet and can often be replaced by more nutritious food choices.



COOKING FOR ENJOYMENT AND HEALTH

The more you experiment with cooking, the better and more confident you will become. This will make it easier for you to enjoy your old favourites and to know which small changes will improve the taste, flavour and healthiness of your meals.

If you do not cook regularly, learning to cook at an older age may seem difficult at first. However, it is exactly like trying to learn a new sport or language: it feels uncomfortable or impossible to start with, but the more you practice, the better you become.

Part of cooking healthily is becoming familiar with a wide range of fresh and interesting ingredients. Try out a new vegetable or fruit or two every time you go shopping and don't be afraid to make something new. You can test out some of the recipes in this booklet and visit www.wcrf-uk.org for some more easy, delicious and healthy ideas.



Hints for adapting recipes

Don't be afraid to change how you prepare many of the traditional dishes you usually cook.

- ◆ Reduce the quantity of butter, oil or cream that you add to recipes. The same results can usually be achieved by using a fraction of the original quantities, particularly in older style recipes. Other substitutes can include low-fat yoghurt, low-fat cottage cheese, half-fat crème fraîche or low-fat fromage frais.
- ◆ Use a little olive oil when frying or roasting foods instead of butter or lard.
- ◆ Drain meat if you're cooking it in a frying pan. For example, if you cook a Bolognese sauce you could strain the meat to allow the fat to drip away after browning.
- ◆ Switch to low-salt varieties and instead of adding salt to your cooking, experiment with fresh herbs, lemon and garlic.



- ◆ Re-adjust the portions of meat to vegetables in your recipes and aim to fill at least two thirds of your plate with plant foods. Allow a small portion of lean meat per person (about the size of the palm of your hand) and bulk up with more vegetables, pulses such as lentils, chickpeas, barley, rice or pasta. Small canned varieties of beans are a quick and easy way to add taste and texture to your meals.
- ◆ Trim all the fat off the meat you eat. When cooking chicken or turkey take the skin off, trim all visible fat and roast on a rack.
- ◆ Filo pastry can be used to make a quiche or pie.
- ◆ Try oil-free marinades to add flavour.
- ◆ Popcorn can be cooked in the microwave and eaten unbuttered. Try adding some herbs or spices for flavour.
- ◆ When you bake, cut the butter or margarine by one-third. Add some extra fruit to provide the moisture. You can try folding a mix of dried or mashed fresh fruit e.g., add mango or banana into your cake mixture.
- ◆ Try to avoid adding sugar to recipes. Sweeten with stewed or fresh fruit or try vanilla essence.
- ◆ Heavy sauces are out these days. Instead of a gravy or cream-based sauce try a splash of some good quality balsamic vinegar.

Healthy eating doesn't mean giving up your old family favourites. Rather it is about making some small modifications and looking at how you can add extra vegetables, fruits or beans. It is about using alternative seasonings to salt and trying to substitute higher-fat ingredients and cooking methods for their lower-fat counterparts.

See how this recipe can be made lighter and healthier by a few modifications and extra additions to the ingredients.

Traditional Family Lamb Stew

Serves 4

1kg lamb
80g butter
1 onion, chopped
2 bacon rashers, chopped

Pinch dried herbs
Salt, pepper

½ x 425g can tomatoes
or 2 tomatoes,
peeled and chopped
2 small beef stock cubes
1 medium cup water
½ medium cup cream

Buy lean lamb and trim off all the fat. Reduce the amount of lamb to 400g for 4 people and add a 300g can of drained haricot beans at the end of cooking.

Replace the bacon with extra tomatoes, olives, large chunks of carrot and potato.

Serve with a few extra green vegetables such as broccoli and peas.

Serve with brown rice.

Forget the butter and brown the lamb in a non-stick frying pan with one tablespoon of olive oil.

Cut out the salt as there is salt in the stock. Try adding extra fresh herbs before serving such as chopped flat-leaf parsley.

Try to make your own stock. After browning the meat add water and save it in a jug.

Forget the cream or only drizzle in 1 or 2 tablespoons of evaporated skimmed milk or some half-fat crème fraîche at the end of cooking.



See the full recipe for our revised lamb stew on the following page

Healthy Lamb Stew



Nutritional values per serving

Calories: 333 **Fat:** 12g **Salt:** 1.2g **5 A DAY:** 2

Serves 4

400g (14oz) lean lamb

1 tablespoon olive oil

1 onion, chopped

1 carrot, chopped

1 small potato, chopped

4 black olives, chopped

Pinch dried herbs

Freshly ground black pepper

2 x 400g (14oz) cans chopped tomatoes, or 4 tomatoes, peeled and chopped

1 small beef stock cube, or home-made beef stock

1 medium cup water

1 x 410g (14oz) can haricot beans, drained

2 tablespoons evaporated skimmed milk or half-fat crème fraîche

1 tablespoon chopped fresh parsley

1 Dice the lamb into 3cm (1") pieces. Add the olive oil to a frying pan and gently heat. Brown the lamb well on all sides in 3 batches. Transfer to a casserole dish and keep warm. Leave the juices in the pan.

2 Fry the onion and chopped carrot, potato and olives in the fat in the frying pan for 1-2 minutes. Lower the heat to a simmer and add herbs, pepper and tomatoes with their liquid.

3 Dissolve stock cubes in the water and add to casserole. Cover and bake casserole in a moderately low (160°C/320°F/Gas mark 3) oven or over a low heat on the stove for 75 minutes. Add the haricot beans to the casserole 15 minutes before the end of the cooking time.

4 At the end of the cooking time, drizzle in the evaporated milk, add the chopped parsley and stir well to combine. Serve with brown rice, broccoli and green peas.



Herby Fish Cakes



**Nutritional
values
per serving**

Calories: 135

Fat: 1g

Salt: 0.1g

5 A DAY: 0*

** To boost your 5 A DAY intake, serve the fish cakes with a tomato salsa and a side salad.*



Makes 8 fish cakes

150g (6oz) plain mashed potato

100g (4oz) sweetcorn (frozen or canned in water)

2 teaspoons parsley, fresh or dried

1 teaspoon thyme, fresh or dried

1 x 100g (4oz) can tuna in spring water or salmon, rinsed and drained

1 egg, beaten

100g (4oz) wholemeal breadcrumbs

- 1** Mix all the ingredients, except the egg and breadcrumbs, in a bowl.
- 2** Divide the mixture into 8 portions and shape into cakes.
- 3** Chill in the fridge for 20 minutes.
- 4** Dip the cakes in the egg and coat in breadcrumbs.
- 5** Place on a baking tray and cook under the grill until golden brown.



Vegetable Cumberland Pie

Nutritional values

per serving

Calories: 438 **Fat:** 13.8g

Salt: 0.8g **5 A DAY:** 3-4

Serves 2

2 large potatoes,
peeled and quartered

150ml (1/4 pint) semi-
skimmed milk

2 tablespoons olive oil

1 small onion, finely
chopped

1 clove garlic, peeled
(optional)

Half a small butternut
squash, peeled, deseeded
and cut into bite-sized
chunks

Half a red pepper,
deseeded and chopped

3 mushrooms, wiped and
chopped

1 medium courgette,
washed and cut into bite-
sized chunks

2 heaped tablespoons
plain flour

1 teaspoon sweet paprika

1 x 220g (9oz) can butter
beans, drained

Freshly milled black
pepper



- 1** Preheat the oven to 190°C / 375°F / Gas mark 5.
- 2** Boil the potatoes until tender, then drain and make a soft mash using a little of the milk.
- 3** In a large, thick-bottomed saucepan, measure out the olive oil and put on a medium heat. Add the chopped onion and cook until transparent.
- 4** Crush the garlic into the pan and add the butternut squash, red pepper, mushrooms and courgettes and sauté for 3-4 minutes.
- 5** Carefully sprinkle the flour and sweet paprika into the pan, stirring all the time. Cook for 1 minute on a low heat.
- 6** Gradually add the milk, stirring all the time to avoid lumps, to form a sauce.
- 7** Stir the drained butter beans into the sauce with some freshly milled black pepper and pour the contents into a large ovenproof dish.
- 8** Top with the mashed potato and bake in the oven for 30 minutes, until golden brown.



Fruit Crumble

Although this is a simple dessert, it is a family favourite and it can be modified so it is lower in fat and boosts intakes of wholegrains.

Nutritional values

per serving

Calories: 344

Fat: 9.8g

Salt: 0.4g

5 A DAY: 1



Serves 4

Filling

(any mix of fruit can be substituted)

25g (1oz) caster sugar

150g (6oz) firm plums

125g (5oz) blackberries

125g (5oz) blueberries

Topping

75g (3oz) wholemeal flour

1/2 teaspoon cinnamon

25g (1oz) brown sugar

50g (2oz) oats

70g (2½oz) low-fat spread

75g (3oz) amaretti biscuits, finely crushed

1 Preheat the oven to 180°C / 355°F / Gas mark 4.

2 Place the flour, cinnamon, sugar, oats and low-fat spread in a bowl. Mix well, then add the amaretti biscuits.

3 In a pan, add sugar to 100mls of water and heat until it forms a light syrup (do not stir). Add the plums and poach for 5 minutes. Remove from heat and add remaining fruits.

4 Place the fruit mixture in an ovenproof dish. Sprinkle over the crumble topping and bake in the oven for 15-20 minutes until golden and crispy.

5 Serve with low-fat custard or low-fat fromage frais.





World Cancer
Research Fund

About WCRF UK

WCRF UK is the principal UK charity dedicated to the prevention of cancer through the promotion of healthy diet and nutrition, physical activity and weight management. WCRF UK is committed to providing cancer research and education programmes which expand our understanding of the importance of our food and lifestyle choices in the cancer process.

By spreading the good news that cancer can be prevented, WCRF UK hopes that many thousands of lives will be saved. The education and research programmes of WCRF UK are funded almost entirely by donations from the public.

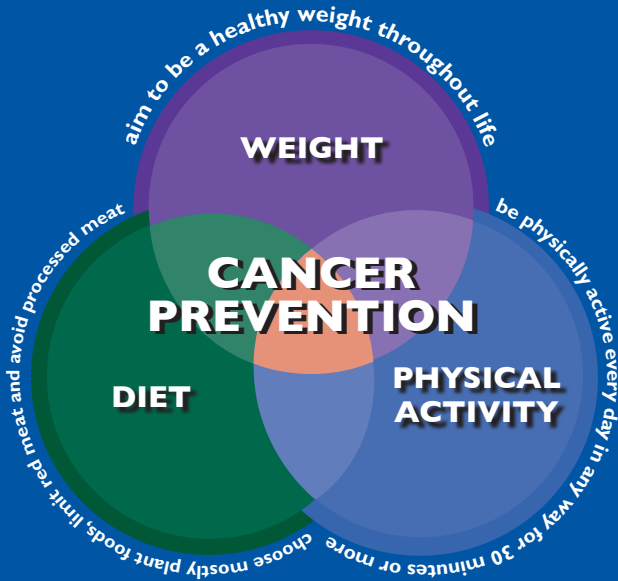
This booklet gives information based on WCRF UK's Recommendations for Cancer Prevention developed from the Expert Report: *Food, Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective* (2007). The Report, produced by WCRF/AICR, is the largest study of its kind ever published and its Recommendations are based on the most comprehensive review of all the available evidence. WCRF UK is committed to interpreting scientific research in the field of food, nutrition, physical activity and cancer prevention and to translating the results into meaningful and practical advice for the public to follow.

WCRF UK's healthy eating and lifestyle information is aimed at the general population and is not intended to influence individuals who are following special diets (on medical advice) or who have special dietary or exercise needs. The information contained in WCRF UK's education publications relates to the prevention of cancer. WCRF UK is not engaged in giving medical advice. For advice in specific cases, please consult your doctor.



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WCRF UK Guidelines for Cancer Prevention



The choices you make about food, physical activity and weight management can reduce your chances of developing cancer

- choose mostly plant foods, limit red meat and avoid processed meat
- be physically active every day in any way for 30 minutes or more
 - aim to be a healthy weight throughout life

And, always remember – do not smoke or chew tobacco

WCRF UK is part of the WCRF global network

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“Stopping cancer before it starts”

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