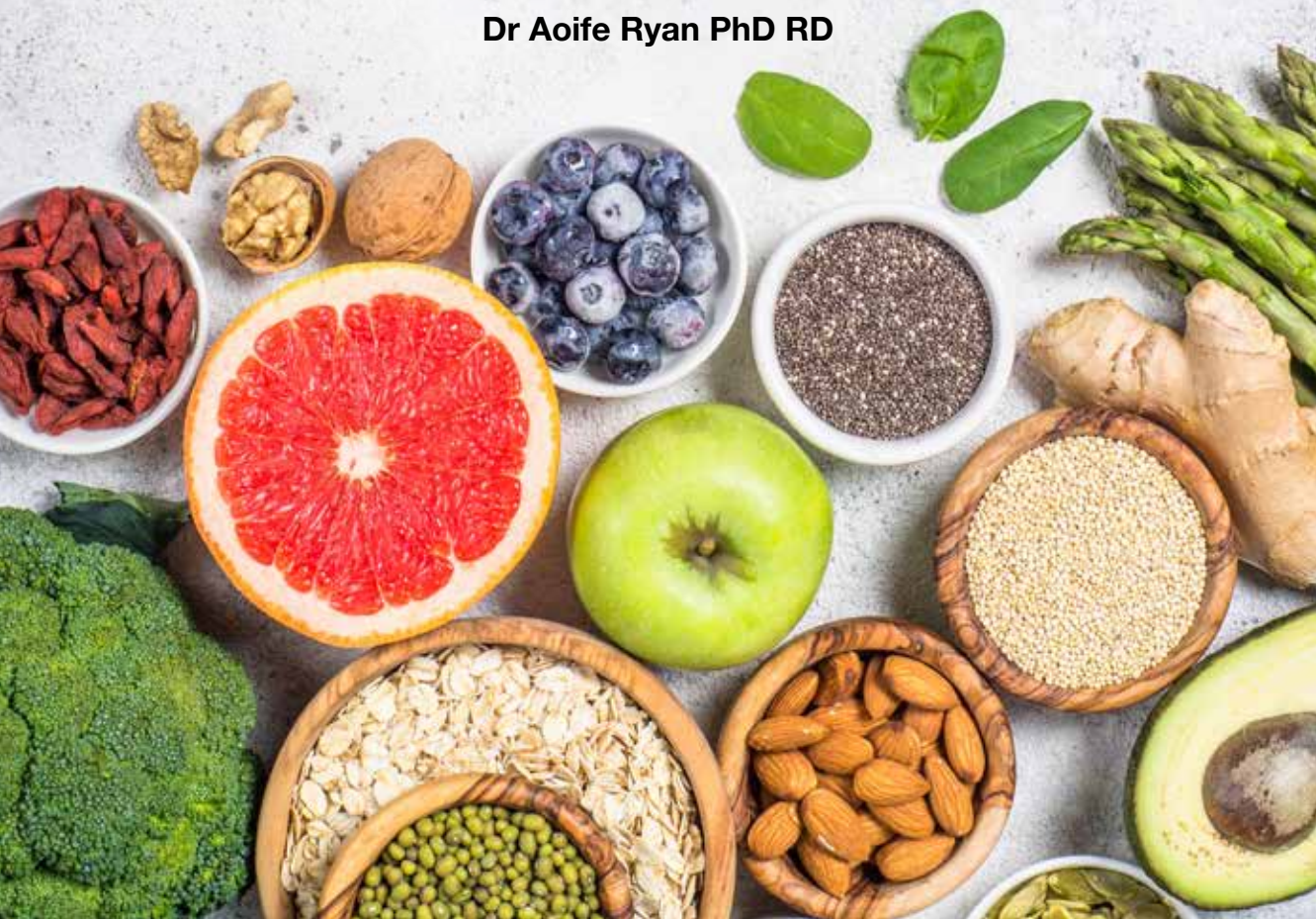


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**Dr Éadaoin Ní Bhuachalla PhD RD**  
**Dr Aoife Ryan PhD RD**



# HEALTHY EATING FOR CANCER SURVIVORS

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An evidence-based approach to healthy eating to  
promote good health for cancer survivors.





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The production of this book was supported by Breakthrough Cancer Research, an Irish medical research charity focused on cancer.

They work to significantly impact the number of people who can survive this disease.

They invest in world-class research in Ireland to impact the quality of life for cancer patients and save lives.

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[www.breakthroughcancerresearch.ie](http://www.breakthroughcancerresearch.ie)

The contents of the book have been endorsed by the Irish Nutrition & Dietetic Institute (INDI), the Irish Society of Medical Oncology (ISMO), The Irish Society for Clinical Nutrition and Metabolism (IrSPEN) and the National Cancer Control Programme (NCCP).



## ABOUT THE AUTHORS:

### Dr Éadaoin Ní Bhuachalla PhD RD



Dr. Éadaoin Ní Bhuachalla graduated with an honours degree in Human Nutrition and Dietetics from Dublin Institute of Technology/Trinity College Dublin in 2013. Following this, she joined Dr. Aoife Ryan's research team in University College Cork and Mercy University Hospital. There, her research and publications focused on the identification, impact and treatment of malnutrition in the oncology setting, as well as the role of nutrition in cancer prevention. Éadaoin has co-authored nutritional resources for patients suffering from cancer-induced weight loss that include high-protein, high-calorie recipes tailored to meet their nutritional needs. To date, 29 000 copies of these resources have been printed and distributed to >74 health care locations nationwide free of charge. In 2015, the 'Good Nutrition for Cancer Recovery' cookbook received an Irish Health Care Award for the Best Patient Lifestyle Education Initiative. Éadaoin was awarded her PhD in 2017 under the supervision of Dr. Aoife Ryan and Dr. Derek Power in University College Cork. In 2018, Éadaoin joined the Health Service Executive, where she now works as a Senior Primary Care Dietitian. She is a CORU Registered Dietitian.



### Dr Aoife Ryan PhD RD

Dr. Aoife Ryan graduated with an honours degree in Human Nutrition and Dietetics from Trinity College Dublin/Dublin Institute of Technology in 2000 and was the recipient of a Trinity College Gold Medal. She initially worked as a dietitian at St. James's Hospital for 8 years in the area of surgical oncology during which time she completed her PhD (2008) at Trinity College Dublin under the supervision of Prof John Reynolds on the topic of nutrition and upper gastrointestinal cancer. In 2008 she was appointed Assistant Professor of Nutrition & Dietetics at New York University. She returned to Ireland and took up the position of Lecturer in Nutritional Sciences at UCC in 2011. Aoife is a CORU Registered Dietitian and also holds a Postgraduate Diploma in Teaching & Learning in Higher Education. Aoife runs an active research programme on nutrition and cancer at University College Cork. She has previously been awarded INDI Research Dietitian of the Year and the Julie Wallace Award from the Nutrition Society. Aoife has published many scientific journal articles and three cookbooks for cancer patients which have all been professionally endorsed and have received a number of awards.

With a rising tide of misinformation on nutrition and cancer available to cancer survivors in the media and online, Éadaoin and Aoife decided to partner with Breakthrough Cancer Research to write this book as a free evidence-based resource for cancer patients entering the survivorship phase of their illness.



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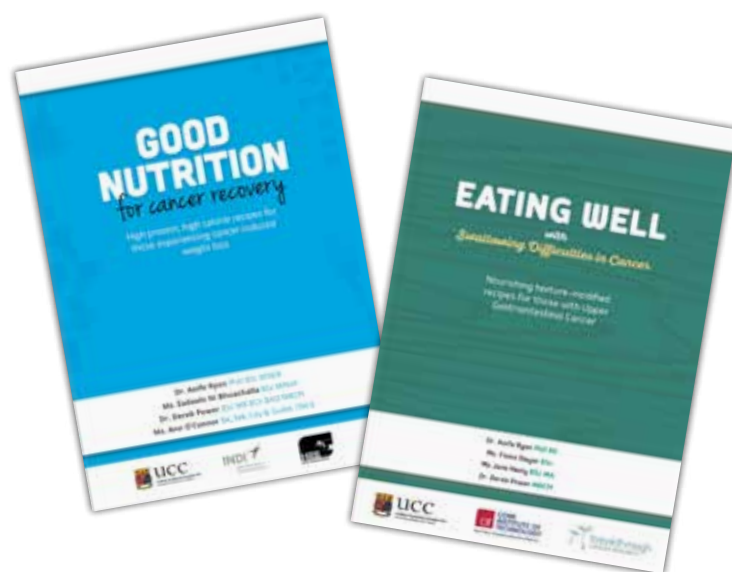
## WHAT DO WE MEAN BY 'CANCER SURVIVOR'?

The term 'cancer survivor' commonly refers to a person that has been diagnosed with cancer at any stage during their lifetime and includes those who are undergoing treatment and those that have recovered from the disease. The advice contained in this book is for cancer survivors who have been ***advised by their medical team to follow a healthy eating diet***. This book is also suitable for survivors who have finished their medical treatment and have been told they are in remission (given the 'all clear') from their disease, or those who have recovered from the disease.

## SURVIVORSHIP DURING TREATMENT VERSUS SURVIVORSHIP AFTER TREATMENT

The needs of a cancer survivor who is fighting the disease and a cancer survivor that has been given the 'all-clear' are not the same.

If you are still undergoing treatment (chemotherapy, radiotherapy or surgery) it is important to support and fuel your body in order to better tolerate cancer treatments. For some, this may mean eating a nourishing diet, rich in energy and protein. If you are undergoing treatment and have recently lost weight without trying, or have any difficulties with your appetite, food intake, or if you have problems swallowing, please ask your doctor or dietitian about our other books: 'Good nutrition for Cancer Recovery' or 'Eating well with swallowing difficulties in cancer'. Both of these books are professionally endorsed and are available free of charge from your local hospital or from [www.breakthroughcancerresearch.ie](http://www.breakthroughcancerresearch.ie). They have both received Irish Health Care Awards for best patient education initiatives.



For cancer survivors who do not have problems with weight loss or with their appetite or food intake, a healthy eating diet might be the most appropriate plan. If you have completed your cancer treatment and been told that you are in remission, it is best to eat a healthy diet, keep physically active and try to maintain a healthy body weight. ***The information in this book is for cancer survivors who have recovered from their disease and have been advised by their medical team to follow a healthy eating diet.***

It is recommended that all patients diagnosed with cancer receive advice from a registered health care professional (preferably from a registered dietitian with experience in oncology, or to talk to their oncologist or cancer specialist nurse) on what diet best suits their diagnosis and personal needs.



## CANCER SURVIVORS: A GROWING POPULATION

The number of cancer survivors worldwide is increasing dramatically. In 2018, there were 18.1 million new cases of cancer diagnosed and 43.8 million people living with cancer within 5 years of diagnosis. It is estimated that the number of new cases of cancer diagnosed annually will increase to 23.6 million by 2030. Also, it is predicted that the number of cancer survivors will reach 70 million by 2050.

The rise in cancer survivorship can be attributed to two main things. Firstly, the rates of many cancers are increasing every year. People are living longer, which means there is a higher chance of cancer developing, and there has been an increase in lifestyle factors/behaviours that increase cancer risk. Secondly, people are surviving longer after a cancer diagnosis because of better screening, diagnosis and treatments for the disease. This means for some people diagnosed with the disease, depending on their diagnosis and cancer type, cancer becomes a chronic, ongoing illness that requires long-term management. As a result, in recent years research has started to look at the importance of a healthy lifestyle after cancer treatment.

## CAN I REDUCE MY RISK OF CANCER COMING BACK?

Yes, there is scientific evidence that certain lifestyle factors can help to reduce the risk of developing a new cancer and the risk of a cancer coming back. Unfortunately no change can reduce your risk totally or guarantee a cancer-free life. There are people who do everything 'right' and still develop cancer. There are people who make all of the recommended changes after a cancer diagnosis and unfortunately their disease may still return despite this. However, there are things you can do to help you be as healthy as possible.

## WHAT WILL HELP ME TO REDUCE MY RISK OF CANCER RECURRENCE OR DEVELOPING A NEW CANCER?

Research into the role of diet and lifestyle on cancer survivorship is in relatively early stages compared to research into cancer prevention. In short, there is no evidence to advise a diet different to that of cancer prevention as it is thought that the same mechanisms that promote cancer prevention also promote the prevention of recurrence.

There are thousands of websites, books, blogs, articles and experts giving advice on how to eat both during cancer treatment and afterwards. This makes it very difficult for cancer survivors to decide what is fact and what is fiction. The most reliable information from all of the scientific studies that have been performed are the expert reports published by the World Cancer Research Fund (WCRF) and the American Institute for Cancer Research (AICR). These reports are endorsed by the World Health Organisation (WHO) and many other international organisations. Panels of expert scientists review the scientific evidence from hundreds and thousands of scientific papers.

The latest cancer prevention recommendations come from the WCRFs latest Expert Report (2018) and from the conclusions of an independent panel of experts. The recommendations represent a 'package' of healthy lifestyle choices, which together, can make an enormous impact on people's likelihood of developing cancer and other non-communicable diseases over their lifetimes. The WCRF recommends that:

- **All cancer survivors to receive nutritional care from an appropriately trained professional\*.**
- **If able to do so, and unless otherwise advised, aim to follow the recommendations for diet, healthy weight, and physical activity as listed below.**

1. Be a healthy weight - keep your weight within the healthy range and avoid weight gain (p12)
2. Be physically active every day – walk more and sit less (p14)
3. Eat wholegrains, vegetables, fruit and beans – make these part of your usual diet. (p17)
4. Limit 'fast foods' and other processed foods high in fat, starches or sugars (p22)
5. Limit red meat and eat little, if any, processed meat (p25)
6. Limit sugar sweetened drinks – drink mostly water and unsweetened drinks. (p28)
7. Limit alcohol consumption – for cancer prevention, it's best not to drink alcohol. (p30)
8. Do not use supplements for cancer prevention – aim to meet needs through diet alone. (p33).

While following each individual recommendation is expected to offer cancer protection, the most benefit is to be gained by treating them as a 'package' or way of life.

**\*In Ireland the title Dietitian is protected by law so these professionals are registered with CORU in the Department of Health. Registered Dietitians are the best source of dietary information if you are a cancer patient or cancer survivor. If you can't access a registered dietitian talk to your oncologist or oncology nurse who will help you access the right evidence-based dietary advice.**

## WHAT DOES THIS BOOK COVER AND WHO IS IT FOR?

This book discusses each of the recommendations made by the World Cancer Research Fund, the reasons behind each of the guidelines, and how best to follow them. In order to help you to put this information into practice we have also included a bank of delicious, easy and healthy recipes that meet cancer prevention recommendations and promote the maintenance of a healthy body weight.

Making lifestyle changes can be difficult but there are so many benefits. The recipes in this resource meet general healthy eating guidelines and will therefore also help reduce the risk of other diseases such as heart disease or type 2 diabetes. They are therefore suitable for all the family.

It is important to remember that some cancer survivors will require tailored nutritional advice and may have been advised to follow a different diet by their doctor or registered dietitian. This book should not be used to replace that advice. The advice in this book is to help support those that have been advised to return to a 'normal diet' after treatment or those who have been told to follow a healthy eating diet.

## RECOMMENDATION 1:

### BE A HEALTHY WEIGHT

#### KEEP YOUR WEIGHT WITHIN THE HEALTHY RANGE AND AVOID WEIGHT GAIN IN ADULT LIFE.

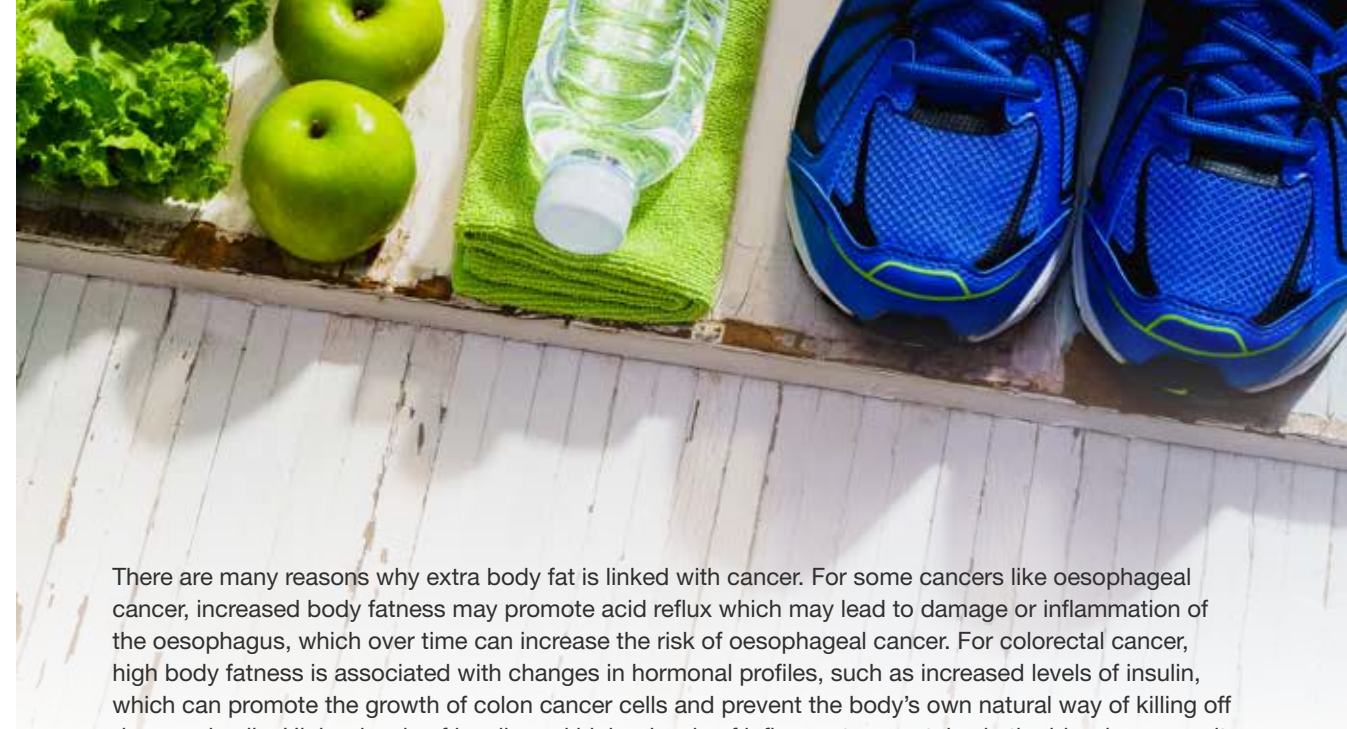
There is strong evidence that greater body fatness causes many cancers, and this evidence has strengthened over the last ten years. The risk is higher the more weight a person gains and the longer they are overweight for. **Maintaining a healthy body weight throughout life is one of the most important ways to protect against cancer.**

There is now 'convincing' scientific evidence that being overweight or obese throughout adulthood increases the risk of: mouth, pharynx and larynx cancers, oesophageal cancer (adenocarcinoma), stomach cancer (cardia), pancreatic cancer, liver cancer, colorectal cancer, breast cancer (postmenopausal), ovarian cancer, endometrial cancer (cancer of the womb), prostate cancer (advanced) and kidney cancer. Greater weight gain in adulthood increases the risk of post-menopausal breast cancer.

Body fatness is difficult to measure directly without special equipment. Body Mass Index (BMI) is commonly used as a measure of weight in relation to your height. BMI is calculated as weight in kilograms divided by height in metres squared ( $\text{kg}/\text{m}^2$ ). BMI charts and calculators are available online that can be easily used to classify your weight for height score. It is recommended that individuals keep their BMI within a healthy range. The World Health Organisation (WHO) have classified healthy or 'normal' weight adults as having a BMI of between  $18.5$ - $24.9 \text{ kg}/\text{m}^2$ , underweight as  $<18.5 \text{ kg}/\text{m}^2$ , overweight as  $>25 \text{ kg}/\text{m}^2$ , and obese as  $>30 \text{ kg}/\text{m}^2$ .

Where fat is stored in the body is also important. Storing fat around the abdomen (or belly) is commonly referred to as an 'apple shape'. Excess abdominal/belly fat is a cause of a number of chronic diseases including type two diabetes, cardiovascular disease and many cancers.

Being overweight doesn't mean that someone will definitely develop cancer. But if a person is overweight they are more likely to get cancer than if they are a healthy weight. Consistent results from decades of research involving millions of people show the strong link between obesity and cancer and means we can confidently rule out other reasons (such as chance or other lifestyle factors). The risk increases the more weight is gained.



There are many reasons why extra body fat is linked with cancer. For some cancers like oesophageal cancer, increased body fatness may promote acid reflux which may lead to damage or inflammation of the oesophagus, which over time can increase the risk of oesophageal cancer. For colorectal cancer, high body fatness is associated with changes in hormonal profiles, such as increased levels of insulin, which can promote the growth of colon cancer cells and prevent the body's own natural way of killing off damaged cells. Higher levels of insulin and higher levels of inflammatory proteins in the blood as a result of obesity can also promote the development of many cancers including colorectal and postmenopausal breast cancer. In postmenopausal women with increased body fatness, higher levels of hormones like insulin and oestrogen (made in fat tissue) are in the blood. These are only a few examples of the role excess body weight can play in cancer development.

### WHAT CAN I DO TO MAINTAIN A HEALTHY WEIGHT AND LIFESTYLE?

The best advice for maintaining a healthy weight is to be physically active, consuming a diet rich in wholegrains, fruit and vegetables, while limiting the consumption of sugar sweetened drinks and energy-dense foods (convenience foods) that are high fat, sugar and salt.

Plant foods are generally low in energy (with a few exceptions) and eating a large amount of plant food helps to control the amount of food and calories (energy) we consume. This in turn helps to prevent excess weight gain. Fruit and vegetables also form an important part of the diet to prevent against cancer development. It is best to choose whole, fresh fruit and vegetables, rather than processed or tinned foods that are high in sugar or salt. Red meat should be consumed in low to moderate amounts and processed meat should be avoided. Alcoholic drinks should also be consumed in small amounts, if not at all. Alcohol is very high in energy (calories) and has been shown to be linked to many cancers.

**Being physically active daily helps to maintain a healthy weight, as well as improving cardiovascular fitness. It is recommended that individuals be physically active for at least 30 minutes every day.** As fitness improves, this should be increased to 60 minutes or 30 minutes of vigorous activity, equating to approximately 150 minutes per week. Even standing up or getting up and about at work can help to increase the amount of time spent being active.

## RECOMMENDATION 2:

### BE PHYSICALLY ACTIVE

BE PHYSICALLY ACTIVE FOR AT LEAST 30 MINUTES EVERY DAY.

### PERSONAL RECOMMENDATIONS

- **Be moderately physically active, equivalent to brisk walking, for at least 30 minutes every day.**
- **As fitness improves, aim for 60 minutes or more of moderate, or for 30 minutes or more of vigorous, physical activity every day.**
- **Limit sedentary habits such as watching television.**

Physical activity improves the health of everyone, no matter what age. The benefits of being physically active range from disease prevention to improved mental health and much more. People who do not achieve recommended levels of physical activity have a 20-30% higher risk of death compared to those who are active. Physical inactivity is the fourth leading cause of death worldwide. It has been proven to reduce the risk of many diseases including cancer, heart disease, stroke and diabetes. It helps to burn off energy/calories from food, and therefore is essential for preventing overweight or obesity. The more exercise we do the greater the health benefits.

### HOW DOES PHYSICAL ACTIVITY AFFECT CANCER RISK?

**Physical activity helps to reduce cancer risk in a number of ways. Moderate to vigorous activity has been shown to directly reduce the risk of breast, bowel and womb cancer.** In addition, regular physical activity can prevent weight gain, overweight and obesity and therefore helps to prevent the development of obesity-related cancers.

Physical activity also helps to reduce inflammation (inflammation promotes cancer growth), and improves immune function. It also helps with the production of healthy levels of hormones in the body. In some cancer sites, physical activity has a direct impact. For example, physical activity aids the bowel by encouraging regular bowel movements. This reduces the amount of time waste takes to pass through the gut, reducing the bowel's exposure to toxins, which in turn reduces the risk of bowel cancer.

### ARE CERTAIN FORMS OF EXERCISE BETTER THAN OTHERS?

The evidence linking physical activity to cancer risk is based on moderate to vigorous aerobic activity. Moderate activity includes any exercise that makes your heart beat faster and increases your breathing but you can still maintain a conversation. You will be warm and produce a light sweat e.g. brisk walk (1 mile in 15-20 minutes), jogging (a mile in >10 minutes), cycling (< 10 miles per hour), medium paced swimming, ballroom dancing, general gardening.

Vigorous exercise causes heavy breathing, with a faster heart rate and more sweating. It would be a struggle to keep a conversation going while exercising vigorously. Examples of vigorous activity include: jogging/running (1 mile in < 10 minutes); fast cycling (>10 miles per hour); active sports such as hurling, football, soccer, basketball, squash or aerobics; circuit training; swimming lengths; fast paced dancing such as salsa, Irish dancing, quick step etc; skipping; heavy gardening; or hill-walking with a backpack.

It is best to include a mixture of moderate and vigorous activity over the week. In addition it is advisable to also include activities that increase muscle strength, balance and flexibility. Muscle strengthening activities help to keep your muscles strong and this helps you to carry out your daily activities. Having more muscle and stronger muscle is really beneficial as you get older, helping you to remain independent, and it is also really important for recovery from illness, surgery or some medical treatments e.g. surgery, chemotherapy, radiotherapy. Strength exercise includes using hand-held weights, weight machines or using your body weight to build muscle. Exercises to improve balance and flexibility help to prevent falls and to keep your muscles limber. These include: stretches, standing from sitting, standing on one foot, walking on heels and toes, yoga and tai chi.

It is also important to remember that physical activity doesn't just have to be performed during your leisure time. Physical activity includes the exercise involved in transport (e.g. walking or cycling to work, school or college), occupation (jobs that include activity or manual labour), as well as recreational activities.



## HOW MUCH EXERCISE SHOULD I BE DOING?

First and foremost, you should always exercise as tolerated and gradually build up your exercise levels at a comfortable rate. If you have: chronic conditions such as diabetes, heart disease or osteoarthritis; a lack of mobility; or experience chest pain, dizziness or joint pain you should speak with your doctor before increasing your physical activity levels and look for advice on how to include physical activity safely. Even if you are limited in what exercise you can do, you should aim to be as active as you are able to be.

It is recommended that at a minimum, adults should engage in 30 minutes of moderate activity 5 days a week. Exercise can be broken up into shorter bouts, but these need to last longer than 10 minutes. Engaging in vigorous activity is roughly equal to twice the amount of moderate activity, so 75 minutes of vigorous activity would meet recommendations as it is equivalent to 150 minutes of moderate activity. It is best to spread exercise out over the week and to include a variety of exercise types.

This is recommended as the minimum level of physical activity, and greater health benefits are yielded from increased exercise. It is optimal to include at least 60 minutes of moderate activity on 5 days of the week, totalling 300 minutes (or 150 minutes of vigorous activity). Again, it's best to spread this out over the week and to include different forms of exercise to yield maximum benefits.

## LIMITING SEDENTARY HABITS

Sedentary is another word for being inactive. Being sedentary means that your body is not doing any work and usually involves sitting or lying down for a period of time. There is convincing evidence that the more time you spend sedentary, the greater the risk of developing cancer. Sedentary activities include activities such as watching television, computer work, talking on the phone or driving.



## RECOMMENDATION 3:

### EAT A DIET RICH IN WHOLEGRAINS, VEGETABLES, FRUIT AND BEANS.

## PERSONAL RECOMMENDATIONS

- **Consume a diet that provides at least 30 grams per day of fibre from food sources.**
- **Eat a diet high in all types of plant foods including at least five portions or servings (at least 400g or 15oz in total) of a variety of non-starchy vegetables and fruit every day.**
- **Include in most meals foods containing wholegrains, non-starchy vegetables, fruit and pulses (legumes) such as beans and lentils.**

**There is strong scientific evidence that eating wholegrains protects against colorectal cancer,** and that eating foods containing dietary fibre protects against colorectal cancer and against weight gain, overweight and obesity. **Most diets that are protective against cancer are rich in foods of plant origin.**

## WHAT IS A PLANT FOOD?

Plant foods are foods that are derived from plants and are naturally high in nutrients, high in dietary fibre but low in energy density. Our diets should be based primarily on plant foods, particularly unprocessed cereals and grains, non-starchy vegetables and fruit, legumes and pulses (peas, beans and lentils), with a limited amount of food derived from animals e.g. meat products, dairy products. Examples of plant foods include fruit, vegetables, whole grains and legumes. One portion of non-starchy vegetables or fruit is approximately 80 grams or 3 ounces.

## UNPROCESSED CEREALS AND GRAINS

Cereals (grains) are the seeds of cultivated grasses e.g. wheat, rice, maize (corn), millet, barley, oats, and rye. The majority of the cereals and grains that we eat are processed or refined. During manufacturing, the grains are broken up into pieces and different parts of the grain are sifted out to produce a grain that is easier to chew, faster to cook and lighter in colour e.g. white rice, white flour. A lot of the fibre, protein and B vitamins in the original grain are lost through this processing or refining. Grains commonly go through additional processing before they reach the supermarket shelf e.g. the addition of sugar to cereals during the production of processed breakfast cereals. On the other hand, wholegrain products go through limited processing and generally the grain is kept intact. In this way unprocessed grains (wholegrains) are a much better source of nutrition, providing more dietary fibre, resistant starch, antioxidants and vitamins and minerals. Examples of unprocessed cereals and grains include brown rice, oats, brown pasta, wholegrain or brown bread, couscous, quinoa and unsweetened breakfast cereals.

## NON-STARCHY VEGETABLES

Vegetables can be categorised into two main groups; non-starchy and starchy vegetables. Starchy vegetables include potatoes, yam, sweet potatoes, and plantain. Although they are classified as vegetables by some, they are high in carbohydrate and therefore they do not count towards your fruit and vegetable intake. Instead they are counted as a carbohydrate source i.e. an alternative to pasta, rice or bread in the diet.

Non-starchy vegetables count towards your fruit and vegetable intake and are a rich source of vitamins, minerals and fibre. Non-starchy vegetables can be further divided into different families including green, leafy vegetables (e.g. spinach, lettuce, kale); root vegetables (carrots, butternut squash, beets, parsnips, turnips, swede) cruciferous vegetables (the cabbage family, e.g. cabbage, brussels sprouts, broccoli, cauliflower) and allium vegetables (e.g. onions, garlic, and leeks).

## LEGUMES AND PULSES

Legumes are a family of plant foods which include fresh peas, fresh beans, soybeans, peanuts and pulses. Pulses refer to the dried seed of the legume family, and include foods such as dried peas, chickpea, beans and lentils. Legumes have an important role in the cancer prevention diet as they are plant foods that are both high in protein and a rich source of fibre, therefore providing a nutritious alternative to meat.

## HOW DO PLANT FOODS ALTER CANCER RISK?

Plant foods reduce cancer risk in three main ways.

The strongest evidence linking plant foods and cancer, is for fibre-containing foods (e.g. fruit, vegetables, wholegrain bread, wholegrain rice, brown pasta, oats) and bowel cancer. Fibre has many different benefits, one of the main ones being helping to maintain regular bowel movements. Fibre helps to speed up the passage of food through our gut, something which is thought to be beneficial for cancer prevention, particularly for cancers of the bowel. A review of all the studies looking at fibre and bowel cancer found that for every 10g of fibre eaten every day, there is a 10% lower risk of developing bowel cancer. Getting fibre by eating legumes showed the best risk reduction (e.g. peas, beans, chickpeas, lentils) (38% reduced risk of cancer), followed by eating wholegrain cereals, fruit and vegetables (WCRF/AICR Systematic Literature Review Continuous Update Project Report, Colorectal Cancer 2010).

Individual groups of fruits and vegetables have also been shown to reduce the risk of specific cancers. There is strong evidence to show that eating non-starchy vegetables protect against cancers of the mouth and throat. There is strong evidence to prove that garlic is protective against cancers of the bowel. Higher fruit consumption is protective against cancers of the mouth, throat and lung. Fruit and vegetables are rich sources of vitamins and minerals, which help to keep our immune system and our body healthy; they are also good sources of phytochemicals and antioxidants. These compounds are very active and can help to protect our bodies from damage to cells which can lead to cancer.

Finally, plant foods are generally low in energy/calories (with a few exceptions) and eating a large amount of plant food helps to control the number of calories we consume. Therefore consuming plant foods helps us to achieve the first cancer prevention recommendation of maintaining a healthy body weight and preventing overweight/obesity, something which we know is associated with an increased risk of 12 different cancers.



## WHICH 'PLANT FOODS' SHOULD I BE EATING AND HOW MUCH?

Plant food should make up the majority of our diet, with a limited amount of animal foods. The WCRF recommends eating at least 400g (14oz) of fruit and non-starchy vegetables a day, which equates to a minimum of 5 portions or '5-a-day'. Fresh, frozen, dried and canned in water or natural juices all count towards your '5 a day'. Limit fruit juice to unsweetened varieties and only one glass a day. Limit dried fruit to 1 tablespoon a day (30g). Pulses e.g. lentils, peas and beans, also count towards 1 portion of your '5-a-day' and are also a great source of fibre and protein.

Different types of fruit and vegetables contain different vitamins, minerals and phytochemicals and that is why including a variety of these foods is so important. A good rule of thumb is to include a range of different coloured fruit and vegetables in your daily diet. This will help to ensure you are eating a range of different vitamins and minerals.

One portion of fruit and vegetables is roughly 80g weighed (2 1/2 – 3 oz). Examples of 1 serving are listed below:

- 3 heaped tablespoons cooked vegetables e.g. carrots, parsnips, broccoli
- 1 cereal bowl of salad leaves e.g. lettuce, rocket
- 1 slice of a large fruit e.g. melon
- 1 medium whole fruit e.g. apple, banana, orange
- 2 small whole fruits e.g. plums, kiwis, mandarin orange
- 1-2 handfuls berries e.g. strawberries, raspberries, blueberries
- 3-4 heaped tablespoons of cooked or canned pulses e.g. beans, peas or lentils
- 1 tablespoon of dried pulses e.g. dried lentils, dried chickpeas

Starchy vegetables (e.g. potatoes, sweet potatoes, yam), grains (e.g. rice, quinoa or oats) and anything fruit flavoured (or containing added sugar or salt) (e.g. fruit jams, olives) do not count towards your 5-a-day.

Aside from fruit, vegetables and pulses, our plate should contain healthy grains and cereals e.g. rice, oats, pasta, bread, couscous and unsweetened breakfast cereal. We should always choose wholegrain or brown varieties over 'white'. It is important to limit processed grains and cereals as these can be high in fat, sugar and salt.

As a rule of thumb, at mealtimes a minimum of 3/4 of our plate should be made up of wholegrains, fruit, vegetables and pulses. The remaining 1/4 (or less) should contain lean meats, fish or other protein foods. See the photo below as an example of how your plate should look at mealtimes. Meat has traditionally been the centre of Irish meals; however we need to rethink the way we plan our meals and start centring our dishes on plant foods rather than animal foods. This change will greatly help to reduce our risk of many different cancers and will reduce overweight/obesity.



## RECOMMENDATION 4:

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.

There is strong evidence that diets containing greater amounts of 'fast foods' and other processed foods that are high in fat, starches or sugars are a cause of excess weight gain and as a result overweight and obesity. These foods are generally highly palatable, high in energy, cheap, easy to access and store. As a result these foods have been shown to contribute to excess intake of energy/calories and lead to weight gain. There is strong evidence that greater body fatness is a cause of many cancers.

### WHAT IS ENERGY DENSITY?

Energy density measures the amount of energy (or calories) a food supplies in a given weight of the food (usually 100g). If a food has a high energy density it means it provides a large amount of calories in a small volume of the food e.g. confectionary, fast food. On the other hand, a food that is low in energy density provides a small amount of calories in a large amount of the food e.g. fruit, vegetables.

### HOW WILL I KNOW WHETHER A FOOD IS ENERGY DENSE?

As a general rule, processed foods that contain lots of fat/sugar and little fibre tend to have a high energy density, whereas fresh foods that are not processed tend to have a lower energy density. There are some whole foods that are naturally energy dense (e.g. nuts, seeds), however when these are consumed in moderation as part of a healthy balanced diet, they have not been associated with weight gain or an increased risk of cancer, and are often a valuable source of nutrients.

Most foods display nutritional information on their labels and usually list how many calories (kcal) the food contains per 100g of the food. The following categorisation will then allow you to check whether the foods have a low, moderate or high energy density.

AMOUNT OF ENERGY (CALORIES) IN 100G OF FOOD		
HIGH ENERGY DENSITY	MEDIUM ENERGY DENSITY	LOW ENERGY DENSITY
Over 225 calories (kcal)	125- 225 calories (kcal)	<125 calories (kcal)
E.g. fast foods, cakes, biscuits, crisps, confectionery, butter and other spreads.	E.g. bread, cooked brown pasta, cooked brown rice, lean meat, poultry and fish.	E.g. most vegetables, fruits and cooked pulses.



## HOW DO ENERGY DENSE FOODS AFFECT CANCER RISK?

Foods and diets that have a high energy density cause weight gain and promote overweight and obesity. The primary goal of this recommendation is to help us to achieve the 1st recommendation of maintaining a healthy body weight, because overweight and obesity are strong risk factors for cancer.

Aside from weight gain, energy density is also an important measure of the quality of the diet. Foods that are high in energy density generally have a poor nutritional quality. By avoiding energy dense foods, the diet will naturally be low in processed foods and high in plant-based foods, two cornerstones of cancer prevention and healthy eating diets.

## WHAT IS CONSIDERED A 'SUGARY DRINK' AND WHY SHOULD WE AVOID THEM?

Sugary drinks refer to drinks with added sugar. Sugary drinks provide a lot of calories but do not provide any nutritional value and do not make us feel full. In this way they lead to overconsumption of calories and lead to weight gain.



## RECOMMENDATION 5:

### LIMIT CONSUMPTION OF RED MEAT AND PROCESSED MEAT.

#### PERSONAL RECOMMENDATIONS

- **People who eat red meat to consume no more than about three portions per week. This is equivalent to about 350 - 500 g (12 - 18 oz) cooked weight of red meat.**
- **Consume very little, if any, processed meat.**

There is strong evidence that consumption of red meat and consumption of processed meat are both causes of colorectal cancer. The recommendation is not to completely avoid eating meat. Meat can be a valuable source of nutrients, in particular protein, iron, zinc and vitamin B12.

***“For people who eat meat, eat no more than moderate amounts of red meat, such as beef, pork and lamb, and eat little, if any, processed meat.”***

*Opinion of the WCRF Expert panel 2018.*

### WHAT IS RED MEAT?

Red meat is any meat that is a dark red colour before being cooked, like beef, pork or lamb. Examples include minced beef, pork chops and roast lamb. There is strong evidence that eating too much red meat can cause bowel cancer, one of the most common cancers in Ireland.

### WHAT IS PROCESSED MEAT?

Processed meat is meat that is not sold fresh, but has been preserved by smoking, curing or salting, or by the addition of preservatives. Examples include ham, bacon, rashers, salami, pepperoni, chorizo, corned beef, as well as hot dogs and sausages.

There is strong evidence that eating too much processed meat can cause bowel and stomach cancer, and may cause pancreatic cancer. Processed meat has actually been classified as a Group 1 carcinogen, or a 'definite' cause of cancer, putting it into the same category as smoking and alcohol. It is more strongly linked to bowel cancer than red meat is.

Both red and processed meats are different from white meats, like chicken or turkey, and from fish, neither of which appear to increase your risk of cancer.

## HOW DO RED AND PROCESSED MEATS CAUSE CANCER?

Evidence from large population studies has shown time and time again that people who eat vegetarian diets are at a lower risk for certain cancers. However, it's difficult to say how much of this relates to the absence of meat in their diet, and how much relates to other aspects of their lifestyle, like not smoking, drinking less alcohol, and so on.

We do know that when meat is preserved by smoking, curing or salting, or by the addition of preservatives, cancer-causing substances (carcinogens) can be formed. These substances can damage cells in the body, leading to the development of cancer. Cooking meat at high temperatures, by grilling or barbequing for example, can also create chemicals in the meat that may increase the risk of cancer. These chemicals are generally produced in higher levels in red and processed meats compared to other meats. It is also believed that the compound that gives red meat its colour, haem, may damage the lining of the bowel, increasing the risk of bowel cancer over time.

## IS RED MEAT NOT GOOD FOR US?

Red meat is actually a very nourishing and healthy food when consumed in modest amounts. It is an excellent source of nutrients like protein, iron, zinc and vitamin B12. It's certainly not a problem to include small amounts of red meat as part of a healthy, balanced diet. The same cannot be said for processed meats, which have far less nutritional value. If you are a meat-eater, then when choosing meats, it's best to go for the fresh, unprocessed variety.



## HOW MUCH IS TOO MUCH?

While the recommendation is to avoid processed meats completely, there is no suggestion that we should switch to a meat-free diet completely, or to a diet containing no foods of animal origin (a vegan diet). Instead, the recommendation states that we should limit our intake of red meat to less than 500g cooked meat (or 750g raw meat). To put this into context, a medium steak weighs about 145g (cooked weight).

For many of us, red meat may be the centerpiece of our main meal several times per week, and this is probably too much. It's really just about being sensible, and not eating too much, too often. Overall, the cancer risks from eating red and processed meats are lower than they are for other things linked to cancer, such as smoking.

## HOW CAN WE CUT BACK ON RED AND PROCESSED MEATS?

There are lots of ways to cut back on red and processed meats without feeling like you're missing out.

- Bulk up with beans. Use kidney beans, chickpeas or lentils to replace some of the meat in dishes such as chili or bolognese.
- If you're a regular consumer of bacon, chorizo or salami, try spicy chicken or vegetarian sausages instead.
- Eat smaller portions of red meat, and keep a few days in the week red meat free.
- Choose fish instead – it's delicious, healthy and makes a great alternative to red meat. Sometimes people stick to the battered and breaded varieties, as they aren't sure what to do with fish. Hopefully the fish recipes in this cookbook will give you some great ideas for healthy fish dishes that everyone will love.



## RECOMMENDATION 6:

### LIMIT CONSUMPTION OF SUGAR SWEETENED DRINKS

**There is convincing evidence that consumption of sugar sweetened drinks is a cause of weight gain, overweight and obesity in both children and adults, especially when consumed frequently and in large portions.** Sugar sweetened drinks do this by promoting excess energy (calorie) intake relative to the energy we expend. As outlined already there is strong scientific evidence that greater body fatness is a cause of 12 different cancers.

### WHAT IS CONSIDERED A 'SUGARY DRINK'?

Sugary drinks refer to drinks with added sugar. They include soda, minerals, sports and energy drinks, barley water, cordial and coffee and tea-based beverages that have sugars or syrups added to them. They do not include versions of these drinks which are labelled as 'sugar free' or those with artificial sweeteners added. As a lot of sugar is 'hidden' within foods we buy, it is easy to underestimate the amount of sugar we are taking in over the day. It is recommended for an adult with a healthy body weight no more than 30 grams of added or free sugars should be eaten per day. One teaspoon is proportionate to approximately 4 grams of sugar, so the recommendation is no more than 6 teaspoons per day. To put this into context, current figures suggest adults are consuming 59 grams of sugar per day. Most of the sugar we eat comes from food and drink such as soft drinks, cakes, biscuits, sugar, jam, milk products and alcohol. Sugar sweetened drinks take up a quarter of our daily sugar intake.

In recent years, consumption of sugar sweetened drinks has increased dramatically, particularly in low and middle-income countries. While the sale of these drinks has decreased in high-income countries, average daily intakes have remained high. Sugar sweetened drinks are often consumed with other high calorie foods. This can lead to greater body fatness.

### HOW DOES CONSUMPTION OF SWEETENED DRINKS AFFECT CANCER RISK?

Drinking sugary drinks regularly results in overconsumption of calories and leads to weight gain. This excess weight has been associated with an increased risk of 12 different cancers including: mouth, pharynx and larynx, oesophagus (Adenocarcinoma), stomach (cardia), pancreas, gallbladder, liver, colon and rectum, breast (postmenopausal), ovary, endometrium, prostate (advanced) and kidney.



### WHAT CAN I DO TO REDUCE MY SUGAR SWEETENED DRINK INTAKE?

Many of the cancer prevention recommendations made by the WCRF tie in together and this recommendation is no different. By increasing the amount of plant foods being eaten (recommendation 4) and reducing the amount of animal foods (recommendation 5) and energy-dense, processed foods being eating (recommendation 3) being consumed, the amount of sugar being consumed will naturally decrease. There are several other ways you can consciously reduce your daily sugar sweetened drink intake:

- Check food labels: When trying to judge whether drinks are high in a certain nutrient or when comparing drinks, always look at the 'per 100g of food' column. By law, foods must display the nutritional information per 100g of the food for each of the main nutritional components, including sugar. Once you have identified how much sugar is in 100g of the drink, you can use the cut-offs shown in the table below to decide whether the food is high, medium or low in sugar. Use this to choose drinks that are mostly low in sugar and to avoid drinks high in sugar.

AMOUNT OF SUGAR IN 100G OF FOOD		
HIGH	MEDIUM	LOW
Over 15g	5g to 15g	Less than 5g

- Choose 'no-added sugar' or 'low sugar' varieties: As sugar has been well-documented as an unhealthy additive to food, many manufacturers have taken note and released 'no-added sugar' or 'low-sugar' varieties of their products. For example, fizzy drinks are usually extremely high in sugar, however many large brands have released low-sugar drinks to give consumers more control over their sugar content.
- To maintain adequate hydration, it is best to drink water or unsweetened drinks such as tea or coffee with no added sugar. Fruit juices are recommended to be consumed in small amounts, as even unsweetened juices can cause weight gain in a similar way to sugar-sweetened drinks. Scientific research has found that artificially sweetened drinks do not play a strong role in overweight/obesity or cancer occurrence.

## RECOMMENDATION 7:

### LIMIT ALCOHOL CONSUMPTION.

FOR CANCER PREVENTION ITS BEST NOT TO DRINK ALCOHOL.

### ALCOHOL CAUSES CANCER

The International Agency for Research on Cancer (IARC) has classified alcohol as a group 1 carcinogen. This is the risk category and means that there is 'convincing evidence' that alcohol causes cancer in humans. The strongest evidence is for to cancers of the mouth, throat, larynx (voice box), oesophagus (squamous cell carcinoma), liver, colorectum (bowel), stomach, and breast (pre- and post-menopause).

There is no safe level of alcohol when it comes to cancer. Simply put, **the risk of alcohol-related cancers increases the more you drink**. And the less alcohol you drink, the lower your risk of these cancers. Drinking no alcohol at all offers the best possible protection against alcohol-related cancers. The cancer risks from alcohol are the same regardless of the type of alcoholic beverage consumed (wine, beer, spirits, etc). It is the ethanol, or pure alcohol, rather than any other ingredient of the alcoholic beverage that causes cancer.

### HOW DOES ALCOHOL INCREASE THE RISK OF CANCER?

Alcohol increases the risk of cancer in a number of different ways. Firstly alcohol is a carcinogen. It is converted in our bodies to a toxic chemical called acetaldehyde. This can cause cancer by damaging our DNA and stopping cells from repairing the damage. Alcohol can also increase the levels of some hormones, such as oestrogen, which particularly increases the risk of breast cancer.

### IS ALCOHOL-RELATED CANCER A PROBLEM IN IRELAND?

Yes, more than you might imagine. According to the National Cancer Control Programme, **900 people are diagnosed with alcohol-related cancers** every year in Ireland, and some 500 people will die from these diseases. Alcohol is responsible for 1 in 8 breast cancers in Ireland. The proportion of alcohol-related deaths from cancer in Ireland is higher than the European average, and rates in Europe are the highest globally.

In Irish men, the majority of alcohol-related cancer deaths occur due to cancers of the mouth, throat and larynx. The risk of developing these cancers is far greater in those who smoke and drink, compared to those who do one or the other.

In women, most alcohol-related cancer deaths occur due to breast cancer. Irish women are now drinking more alcohol, more often, than previous generations, and it is having very real cancer implications. Consuming just one standard drink per day (e.g. one small glass of wine) is associated with a 9% increase in the risk of developing breast cancer, compared to non-drinkers. Consuming 3 to 6 standard drinks per day increases the risk of breast cancer by 41%, compared to a non-drinker. A full bottle of wine at 12.5% alcohol contains about 7 standard drinks, meaning the risk of developing breast cancer is significantly increased in women who consume the equivalent of a half bottle of wine, or more, daily.



## BUT I THOUGHT DRINKING IN MODERATION WAS SUPPOSED TO BE GOOD FOR ME?

There is evidence that modest amounts of alcohol may reduce the risk of coronary heart disease in people who are already at some risk (e.g. in older adults with high cholesterol). For these people, there is a recommendation to take modest amounts of alcohol daily where there is no risk of addiction (although the benefits are not considered strong enough to encourage non-drinkers to take up alcohol). This is not the case for cancer. Because of the strong scientific evidence that drinking all types of alcoholic drinks can increase your risk of cancer, it is recommended that individuals do not drink alcohol at all.

## WHAT CAN WE DO TO REDUCE OUR CANCER RISK?

Ideally in terms of cancer prevention zero alcohol consumption is best. However, for those that choose to drink, staying within the low-risk weekly guidelines for alcohol consumption could prevent over half of all alcohol related cancers in Ireland. The guidelines are:

- For men, no more than 17 standard drinks spread out over the course of a week, with at least 2-3 alcohol-free days
- For women, no more than 11 standard drinks spread out over the course of a week, with at least 2-3 alcohol-free days

In Ireland, one standard drink contains around 10g of ethanol, or pure alcohol. Here are some examples of one standard drink:

- A pub measure of spirits (35.5ml)
- A small glass of wine (100ml)
- A half pint of normal-strength beer
- An alcopop (275ml bottle)

For those individuals drinking more than this at present, aiming to meet these guidelines would be a great start. In terms of cancer risk, however, it would be better still to reduce our alcohol consumption to levels below this.

Alcohol has long been a part of Irish culture. We use it to celebrate, to relax and to commiserate. A shift in this culture is unlikely, but it's important that we are aware of the extent of the alcohol and cancer relationship. Then, at least, we have the choice to reduce our intake and give ourselves a better outlook in terms of cancer risk. So, why not offer to be the designated driver on a night out? Or try a lower-strength beer or wine? Or a tasty spritzer or shandy? Your body will thank you in the long term for it.

## RECOMMENDATION 8:

DO NOT USE SUPPLEMENTS FOR CANCER PREVENTION.

AIM TO MEET NUTRITIONAL NEEDS THROUGH DIET ALONE.

## WHAT ARE DIETARY SUPPLEMENTS?

Dietary supplements are generally a blend of vitamins, minerals, herbs or plant material. They can be taken in pill, capsule, tablet or liquid form. On the island of Ireland, one in four of us are taking dietary supplements at any given time, often to make up for what we feel is a lack in our normal diet.

*“For most people consumption of the right food and drink is more likely to protect against cancer than dietary supplements“*

*WCRF Expert report 2018*

## CAN DIETARY SUPPLEMENTS REDUCE OUR RISK OF CANCER?

It can be difficult to find reliable information about dietary supplements and their usefulness in preventing cancer, as media reports tend to exaggerate claims about supplements and health. Supplements are also marketed in a way that can make you believe they are capable of dramatically improve your health and wellbeing.

Our best available evidence shows that while certain high-dose dietary supplements may be protective against cancer, others can actually increase your cancer risk. However, the studies that showed these effects were all carried out on very specific groups of people – like smokers, people exposed to asbestos and those with known nutrients deficiencies - so they may not be relevant to the general public.

The World Cancer Research Fund recommends that dietary supplements are not taken for the purpose of cancer prevention. Instead, they recommend that we meet nutritional needs through diet alone. For most people, eating a healthy, balanced diet will give a better chance of protecting against cancers than any supplement ever could.

## DOES ANYONE REALLY NEED TO TAKE SUPPLEMENTS?

While taking supplements cannot fully correct a poor diet, they can be very useful where somebody is ill or has a poor diet. For instance, frail older people with a poor food intake might benefit from a regular, low-dose multivitamin and mineral supplement. In Ireland, all women who could become pregnant are recommended to take a 400µg folic acid supplement daily, to protect against the risk of neural tube defects in babies. In addition, during pregnancy many women are advised by their doctors to take an iron supplement. Likewise, it is recommended that babies in Ireland are given a 5µg vitamin D supplement daily from birth to twelve months to protect against vitamin D deficiency in this group.

## WHAT ABOUT PEOPLE GOING THROUGH CANCER TREATMENT?

Dietary supplements are widely used by people with cancer to help fight their cancer or make them feel better.

While most supplements are safe for people to use alongside conventional cancer treatments, there is a risk that some type of supplements could interact with particular types of cancer drugs. For this reason, it's really important for cancer patients to get advice from their doctor before starting to take any dietary supplement.

During the course of cancer treatment, your doctor may prescribe dietary supplements in certain situations. For example, if your treatment involves hormonal therapy that could weaken your bones, your doctor may prescribe calcium and vitamin D supplements. Or if you are finding it difficult to eat a normal, balanced diet due to the cancer or its treatment, your doctor may recommend a good quality, daily multivitamin and mineral supplement, to be taken at the stated dose.

## WHAT SHOULD WE TAKE INSTEAD OF DIETARY SUPPLEMENTS TO PREVENT CANCER?

In a nutshell - good food! At the moment, we have no reliable evidence that any type of dietary supplement can help to prevent cancer in most people. But we do know that a healthy diet with plenty of fruit and vegetables can reduce cancer risk for everybody. Without a doubt, the best source of nourishment is food. Foods and drinks contain a whole host of potentially beneficial food constituents that we simply cannot get from supplements alone. They also give us natural combinations of nutrients that work together to keep us healthy, something that supplements cannot achieve as well.

A healthy, balanced diet that follows the recommendations within this book will give a far better chance of avoiding cancer than any individual dietary supplement can.



## AFTER A CANCER DIAGNOSIS

AFTER A CANCER DIAGNOSIS: FOLLOW THE WCRF RECOMMENDATIONS, IF YOU CAN. CHECK WITH YOUR HEALTH PROFESSIONAL WHAT IS RIGHT FOR YOU.

## PERSONAL RECOMMENDATIONS

- All cancer survivors to receive nutritional care from an appropriately trained professional.
- Unless otherwise advised, and if they can, all cancer survivors are advised to follow the Cancer prevention.
- Recommendations as far as possible after the acute stage of treatment.

The term 'cancer survivor' describes anyone who has been given a diagnosis of cancer at any stage, including those who have recovered from the disease.

When it comes to taking responsibility for their health, cancer survivors are a motivated group. They tend to be very receptive to advice from their medical and surgical teams. So what should people living with cancer do? Are the circumstances of people who have recovered from cancer any different from those of people free from cancer? When it comes to family shopping and meal preparation, should the person with cancer be treated differently? Or should the whole family follow the same recommendations and advice?

Ultimately, research into how to prevent cancers recurring is in its early days. The World Cancer Research Fund (WCRF) has pledged that research into how best to improve the health of cancer survivors will take priority in the scientific work it funds into the future. For now, however, it has examined all available evidence to come up with the following recommendation:

**If able to do so, and unless otherwise advised, cancer survivors should aim to follow the WCRF recommendations for diet, healthy weight, and physical activity.**

The evidence shows that eating a mainly plant-based diet, staying at a healthy weight and keeping physically active will help lower the chances of cancers recurring. Following these recommendations will also improve the chances of longer-term survival after a cancer, particularly breast cancer.

It is also recommended that cancer survivors receive nutritional care from an appropriately qualified professional, like a registered dietitian. There is an abundance of information out there on diet for cancer survivors, and unfortunately it comes from many different sources and is often conflicting or incorrect. A healthcare professional who can evaluate the scientific evidence around a specific diet or dietary supplement, and then advise the cancer survivor based on their own unique medical situation, would be ideal.

## SHOULD ALL CANCER SURVIVORS FOLLOW THESE RECOMMENDATIONS?

Not quite – there are exceptions. These recommendations do not apply to anybody going through cancer treatments at present. If you have recently been diagnosed with cancer, or are currently undergoing treatment for cancer, your nutritional needs are likely to be unique right now. In this case, it is more important to follow your doctor's advice. You may be referred to the book 'Good Nutrition for Cancer Recovery', (which is a free resource available in your local hospital or from [www.breakthroughcancerresearch.ie](http://www.breakthroughcancerresearch.ie)) which contains recipes with a higher protein and calorie content, suitable for most people with a new diagnosis of cancer.

If you are a cancer survivor whose treatments have affected your ability to eat or digest certain foods, then you may also have specific dietary requirements to consider. Patients who have undergone removal of part of the stomach (gastrectomy) or colon (colectomy), for example, may have particular digestive issues that call for a more specialised type of diet. A registered dietitian with experience in oncology would be ideally placed to advise on this.

## NOTHING TO LOSE...

While there can never be a guarantee against cancer returning, the best evidence we have at the moment is simply to try follow the recommendations by the World Cancer Research Fund which are discussed within this book. The good news is that aiming for a healthy weight, staying physically active and eating a mainly plant-based diet is likely to reduce our risk of other chronic diseases - like heart disease or Type 2 diabetes - as well as cancer. And regular physical activity is one of the most effective ways we have of relieving stress, reducing anxiety and bringing a sense of control over our circumstances. So, in following this recommendation, there really is nothing to lose, and only good things to gain.



## COMMON MYTHS AND MISCONCEPTIONS

Below we discuss some of the most common myths and misconceptions that exist in relation to diet and cancer prevention. It is important to say that many myths are rooted in science but the degree of truth or the extent to which they apply to the general population can vary greatly. Science is constantly evolving so new evidence and information is always coming to the fore. That means that advice and information will change over time, but until there is evidence proving or disproving something, it would be unsafe to advise it or advice against it. In general, a balanced diet rich in fruit, vegetables, whole grains and pulses, with limited amounts of animal products, is the key to optimising your health through diet.

## DOES SUGAR FEED CANCER?

Although science has shown that cancer cells consume sugar (glucose), no human studies have shown that eating sugar will fuel cancer growth, or that avoiding sugar will halt the growth of cancer cells.

Focusing on the fact that cancer cells consume sugar is an oversimplification of a complex process. When we eat sugar, sugary foods or any carbohydrate (fruit, vegetables, bread, pasta, rice, cereals, potatoes, yogurt etc.), they are broken down or converted to glucose in our body. Simple sugars (e.g. table sugar) are broken down into glucose a lot quicker than complex carbohydrates (e.g. porridge). Every single cell within our body then uses glucose to survive and perform their duties. If we don't consume carbohydrate, our body will convert fat and protein into glucose as a last resort because we need a supply of glucose in order to keep our cells alive. There's no way to provide our body's cells with the glucose they critically need, and still 'starve' cancer cells of glucose. In addition, cancer cells need other nutrients to survive, they don't run solely on glucose (or sugar).

We do know there is an indirect link between sugar and cancer. Consuming excess sugar will promote weight gain and this weight gain will increase your risk of developing cancer. For this reason, it is important to limit intakes of refined sugars, added sugars and energy dense foods. This is discussed in more detail in recommendation 6 page 28.



## DO ARTIFICIAL SWEETENERS CAUSE CANCER?

No. Extensive studies have been performed to investigate the safety of artificial sweeteners. No evidence was found to link the use of artificial sweeteners and the development of cancer. Furthermore, as is the case for all food additives, sweeteners are regulated by the European Food Safety Authority (EFSA). This means that they undergo rigorous safety testing and risk assessment before being allowed to go on the market in Europe. They will only be allowed go on sale if they have been deemed safe to use by EFSA and EFSA will continually review the scientific evidence and re-evaluate their decisions. Research has shown that artificial sweeteners are safe to consume up to a certain level (the Acceptable Daily Intake (ADI)) in the general population. This excludes infants and young children as the use of artificial sweeteners is not recommended in these groups. The ADI is different for each type of artificial sweetener but people would have to be using an excessive amount of sweetener to reach this level. Moderate use is completely safe.

(E.g. ADI for aspartame is 40 mg/kg body weight/per day (for a 70kg individual this means 2800mg/day) and there is an average of 180 mg Aspartame in a can of Diet Coke).



## DO DAIRY PRODUCTS CAUSE CANCER?

There is no strong evidence to suggest a link between dairy products and increased cancer risk. There is strong evidence that dairy products reduces the risk of colorectal cancer (WCRF 2017), and 'limited evidence' that dairy products decrease the risk of pre-menopausal breast cancer and that diets high in calcium can decrease the risk of both pre- and post-menopausal breast cancer. The myth that dairy is linked with cancer often comes from concerns the public have surrounding the addition of hormones to milk and meat products. In Europe, the addition of hormones to milk or meat is strictly banned and the sale of meat from countries where the addition of hormones is allowed is also illegal. As a result, concerns over the presence of these hormones in dairy or meat products in Europe are unfounded.

## IS ORGANIC FOOD BETTER?

Organic produce are those grown without using artificial fertilisers, pesticides or chemicals. Organic foods are generally more expensive and are becoming increasingly popular due to claims that the produce are safer and more nutritious. However, the nutritional composition of foods is not altered when grown organically so organic fruit and vegetables have the same nutritional composition as non-organic varieties. On top of this, there is no strong evidence to link organic foods with a reduced risk of cancer. In Europe, the level of pesticides on food is tightly regulated and food safety authorities have a responsibility to ensure the levels in foods are well within safe limits. Fruit and vegetables are key components of a cancer prevention diet so the main priority is to include them however you can: organic, non-organic, fresh, frozen, tinned- they all count!



## CAN SUPERFOODS PROTECT AGAINST CANCER?

‘Superfoods’ are foods that are claimed to possess potent nutritional benefits that enhance health and protect against diseases such as cancer. Acai berries, blueberries, chia seeds, kale, garlic, turmeric, the list of foods promoted as having ‘superfood’ properties is endless.

Claims surrounding superfoods are often very misleading as they are usually based on results of studies looking at the affect of nutrients on cells in the lab. Although these studies give us important results, the findings cannot be automatically translated to human diets for a number of reasons. Firstly, we don’t eat nutrients, we eat whole foods. A nutrient in isolation may cause a different response than if consumed within a whole food. Secondly, the nutrients being investigated are often studied at very high levels, levels much higher than what we would be able to eat in our diet. Finally, our bodies also don’t act the same way cells do in laboratory studies. The relationships seen at cellular level might not exist at a whole body level. So we need large scale population studies before we can make recommendations on individual nutrients.

In reality, there is no such thing as a superfood. No single food has the ability to ‘undo’ the affect of an unhealthy diet or lifestyle. Foods that have demonstrated beneficial properties are best incorporated as part of a healthy diet, along with a wide variety of other healthy foods. Instead of focusing on ‘superfoods’, we should focus on ‘superdiets’. A ‘superdiet’ for cancer prevention is a balanced diet that is rich in a variety of fruit, vegetables, wholegrains and pulses, with limited amounts of animal products.



## STORE CUPBOARD ESSENTIALS

We all live busy lives and it can be really challenging to try to eat healthy when you are short on time. A well-stocked cupboard will help you to create nutritious meals when you are in a hurry. Tinned, dried and frozen foods are time-saving nutritious essentials that you can stock up on and store until needed. A selection of herbs and spices is particularly important for flavouring your food without adding salt, and having a variety of tinned beans in the cupboard will allow you to whip up protein-rich meat-less meals. We have compiled a list of food below, the majority of which are non-perishable, which will help you to create a well- rounded food pantry. Although your first ‘stock-up’ stop may be expensive, you will then have the ingredients on hand for when you need them. The ingredients can be mixed and matched or else paired with frozen foods (see p 42) or few key fresh ingredients to make a variety of delicious, healthy meals.

### Tins:

- Tinned tomatoes- chopped tomatoes, plum tomatoes, passata
- Sweetcorn
- Tinned beans- kidney beans, mixed beans, butter beans
- Baked beans (opt for reduced sugar and salt varieties)
- Chickpeas
- Tinned fish- tuna, salmon, mackerel, sardines (opt for varieties tinned in spring water or tomato sauce)
- Light coconut milk
- Tinned pineapple (in natural juice)

### Pulses and grains:

- Wholegrain rice
- Brown pasta
- Brown noodles
- Quinoa
- Lentils

### Other:

- Nuts and seeds
- Dried fruit
- Oats
- Flour- brown, white and corn flour

### Herbs and Spices:

- Cumin (ground, seeds)
- Coriander (ground, seeds)
- Smoked paprika
- Chilli (powder, flakes)
- Turmeric
- Cayenne
- Cardamom seeds
- Fennel seeds
- Mustard seeds

### Condiments, sauces and jars:

- Fats- olive oil, vegetable oil, low calorie spray
- Black pepper
- Low salt/sodium stock cubes
- Tomato puree
- Tomato ketchup (opt for reduced sugar and salt varieties)

- Light mayonnaise
- Mustard- wholegrain, Dijon
- Horseradish sauce
- Worcestershire sauce
- Low salt/sodium soy sauce
- Vinegars- red wine, balsamic, apple cider vinegar

- Olives
- Sundried tomato paste
- Vanilla extract
- Honey
- Nut butter

### Key Fresh Products:

- Lean meats
- Fish
- Eggs
- Vegetables of choice
- Fruit of choice
- Fresh herbs
- Low fat milk, low fat natural yogurt, low fat crème fraiche, low fat cheese

# MAKING USE OF YOUR FREEZER

Your freezer is an important asset in your kitchen and can be used along with your store cupboard to create a selection of convenient, nutritionally balanced meals. The key to making the most of your freezer is organisation. Freezer space can be an issue so freezing foods in freezer bags instead of containers will free up a lot of space. It is important to label and date everything so you can keep track of what needs to be used up and when. As a rule of thumb, foods should not be stored in a freezer for longer than 6 months and only freezers that run at  $-18^{\circ}\text{C}$  are suitable for long term freezing (3-6 months).

Foods should be frozen when as fresh as possible and if you are freezing cooked food they need to have cooled to at least room temperature before being put in the freezer. Foods can only be defrosted once and should always be defrosted in a fridge rather than at room temperature. Only defrost food in a microwave if you are cooking it immediately after defrosting. Foods can only be re-frozen if they have been cooked to piping hot ( $>70^{\circ}\text{C}$ ) and you can only perform this step once (FSAI). Be mindful of portion-sizes when you are freezing foods. If you freeze a batch of food together you will have to defrost the entire batch which could result in wastage. Freezing foods in individual portions will allow you to only defrost the amount that you need.

Most foods are suitable for freezing and it is a great way of taking the hassle out of meal preparation, as well as preventing food waste. Chopping ingredients like garlic, chilli or ginger can be tedious and in general you won't be using up an entire bulb of garlic or root of ginger in one go. When you are preparing something like garlic for a meal, chop extra and freeze it in an ice-cube tray in a small amount of water. Then when you are short on time or don't have fresh garlic in the house you can pop the frozen garlic out of the tray and into your pot/pan. This is also a really handy way of storing lemon and lime juice or fresh herbs that tend to off quite quickly. If you have lots of vegetables lying around you can prepare them and freeze vegetable mixes in freezer bags for days when you don't have time to chop everything up.

You can also use the freezer to get the most out of leftover bread. You can freeze slices of bread or blitz the remainder of a loaf in a food processor to make bread crumbs. You will see any recipes in this cookbook that use breadcrumbs recommend crumbs made from wholemeal bread (as it is higher in fibre). The next time you have loaf of whole meal bread left over, blitz it to make bread crumbs and freeze it. Then when you have a recipe that calls for wholemeal bread crumbs you can take a handful from your store. Breadcrumbs defrost very quickly and can be used from frozen so they are really handy to have in the freezer. Below is a list of some of the most useful things to keep stocked in your freezer.



## Freezer staples

- Chopped garlic
- Chopped chilli
- Chopped/grated ginger
- Chopped onion
- Chopped prepared vegetable mixes
- Frozen vegetables e.g. frozen peas, corn on the cob
- Frozen mixed berries
- Lemon and lime juice frozen in ice-cube trays/bags
- Wholemeal bread crumbs
- Bread
- Frozen meat/fish/prawns
- Leftovers

## TOP TIPS FOR COOKING HEALTHILY

- Keep your store cupboard well stocked.
- Make use of freezer.
- Aim to have a vegetarian dinner at least 2 days a week.
- Choose non-meat sources of protein at lunchtime e.g. fish, eggs, beans, pulses.
- Choose lean cuts of meat.
- Choose healthier cooking methods. Opt for steaming, stir-frying, baking, boiling or grilling instead of frying, deep-frying or roasting in fat.
- Choose low-fat varieties of foods e.g. low-fat yogurt, low-fat cheese, low-fat mayonnaise.
- Use homemade or low salt/sodium stock cubes to cut-down on your salt intake.
- You don't have to stir-fry in fat, you can stir-fry in water in order to cut back on calories. Use a tbsp. of water instead of oil and keep an eye on the pan to make that it does not dry out. If it gets dry just keep adding water, tablespoon by tablespoon. Similarly if you use oil when frying food and the pan gets dry or starts to stick, add water instead of more oil.
- Eat a rainbow- including a wide variety of different coloured fruit and vegetables will help to make sure you are eating a wide range of nutrients.

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## SOUP

Butternut squash soup

Chicken and vegetable soup

Tomato and cannellini bean soup

# BUTTERNUT SQUASH SOUP

 **Serves:** 5-6 (makes 2L)  **Prep time:** 15 mins  **Cooking Time:** 40 mins

## Ingredients:

- 2 tbsp. olive oil
- 3 carrots, chopped
- 1 butternut squash, peeled & chopped
- 2 small onions, peeled and finely chopped
- 1 leek, washed & chopped
- 3 sticks celery, finely chopped
- ½ tsp. grated ginger
- ½ tsp. ground cumin
- Freshly ground black pepper
- 1400 mls stock approximately.

## Methods:

1. Heat the oven to 200C and roast the carrot and squash in the oven with 1 tbsp. of the oil for 30 minutes.
2. Meanwhile heat the remaining oil in a large pan and fry the onion, leek and celery for 5 minutes until softened.
3. Add the squash, carrots, ginger, cumin and ground black pepper and fry for another 5 minutes.
4. Add the stock or water and cook on a gentle heat until vegetables are soft, about 10 minutes.
5. Blend with a hand blender.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
100	5g	0.7g	14g	9g	2g	4g

# CHICKEN AND VEGETABLE SOUP

 **Serves:** 7 (makes 2.5L)  **Prep time:** 10 mins  **Cooking Time:** <1 hour

## Ingredients:

- 1000 mls water
- 4 chicken breasts
- 1 tbsp. olive oil
- 1 large onion, peeled and chopped
- 1 small leek, peeled and chopped
- 2 celery stalks, chopped
- 2 small potatoes, peeled and chopped
- 4 medium carrots, peeled and chopped
- 1 bay leaf
- 200 mls of milk
- 1 tbsp. chopped fresh parsley
- 1 tbsp. chopped chives
- Freshly ground black pepper.

## Methods:




1. Poach the chicken in the water for 20 minutes, remove chicken and shred with 2 forks. Keep the water to use as stock.
2. Heat the oil in a large saucepan over a medium heat and gently fry the onions, celery and leeks for about 10 minutes.
3. Add in the carrot and potato, cook for 5 minutes.
4. Add the reserved water from cooking the chicken and bring the mixture to the boil, stirring as you do so. Add the bay leaf and then reduce the heat until the mixture is simmering. Simmer for approx 30 minutes, until the vegetables are tender.
5. Remove the bay leaf, then using a stick blender, blend the vegetables.
6. Add the milk and cooked chicken and cook until heated through. Season with freshly ground black pepper and stir in the parsley and chives and serve.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
184	4g	1g	15g	7g	23g	4g

# TOMATO AND CANNELLINI BEAN SOUP

 **Serves:** 5 (1.6L)  **Prep time:** 5 mins  **Cooking Time:** 5 mins

## Ingredients:

- 2 tsp. olive oil
- 1 onion finely chopped
- 600g fresh whole tomatoes, quartered
- ½ red chilli, finely chopped
- 1 x 400g tin chopped tomatoes
- 500ml low salt/homemade vegetable stock
- handful basil leaves
- 400g tin cannellini beans, drained and rinsed.

## Methods:

1. Heat the olive oil in a large pan over a medium heat. Add the onion and cook for about 5 minutes, until softened.
2. Stir in the fresh tomatoes and chilli. Cover and cook for 10 minutes, stirring occasionally.
3. Add the tinned tomatoes and stock to the pan and stir well. Bring to the boil briefly, then cover and simmer for 20 minutes, stirring occasionally.
4. Add the beans and heat through.
5. Take the pan off the heat and stir in the basil. Puree the soup with a hand blender until smooth.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
94	2g	0.3g	16g	9g	4g	5g






## SALADS

Quinoa with roasted vegetables and feta

Italian salad

Salmon and pasta salad

# QUINOA WITH ROASTED VEGETABLES AND FETA

 Serves: 4-6  Prep time: 20 mins  Cooking Time: 25 mins

## Ingredients:

- 1 red onion, peeled and chopped into 1½cm pieces
- 1 carrot, peeled and cut into 5cm thin strips (julienne)
- 1 courgette, cut into 5cm thin strips (julienne)
- 1 red pepper, chopped into 1½cm pieces
- 2 cloves garlic, roughly chopped
- Pinch of dried oregano
- 2 tbsp. olive oil
- 1 x 400g tin of chopped tomatoes
- cooked quinoa
- 2 tbsp. fresh parsley, chopped
- 1 tbsp. fresh basil, chopped
- 200g feta cheese.

## Methods:




1. Preheat the oven to Gas 7/220° C
2. Place the red onion, carrot, courgette, and red pepper in an oven proof dish. Add the garlic, a good pinch of dried oregano and olive oil. Toss well to coat all the vegetables.
3. Place on the top shelf of the preheated oven for 10 minutes. Remove from the oven and stir in the chopped tomatoes. Return to the oven for a further 15 minutes until the vegetables are soft.
4. Cook quinoa as per packet instructions, strain and fluff. Place in a large bowl. Add the parsley and fresh basil. Mix well.
5. Stir in the roasted vegetables. Crumble the feta cheese on top and serve.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN
260	8g	2g	30g	13g	13g

# ITALIAN SALAD

 Serves: 4  Prep time: 15 mins  Cooking Time: 10 mins

## Ingredients:

- 4 ripe tomatoes, chopped
- Freshly ground black pepper
- 1 tbsp. capers, rinsed
- 1 sweet red pepper, sliced
- 1 cucumber, deseeded and chopped
- 1 red onion, finely sliced 2 garlic cloves, crushed
- 200g stale Italian bread e.g. ciabatta
- 4 tbsp. olive oil
- 2 tbsp. balsamic vinegar
- 2 large handfuls of fresh basil.

## Methods:




1. Place the tomatoes in a bowl and season with freshly ground black pepper. Rinse the capers and add to the bowl, along with the tomato, pepper, cucumber and onion.
2. Tear or chop the stale ciabatta into cubes and spread them out on a lined baking tray. Spray with 1 kcal cooking spray and toast in a pre-heated oven at 200°C for a few minutes until toasted and brown.
3. Toss the mixture together with your hands, and then stir in the vinegar and olive oil. Taste and add a little more pepper, vinegar or oil, if needed.
4. Tear in the basil leaves, stir together and serve.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
315	16g	2g	35g	12g	8g	5g

# SALMON AND PASTA SALAD

 Serves: 4  Prep time: 20 mins  Cooking Time: 10 mins

## Ingredients:

- 160g (raw) wholegrain pasta
- 225g tinned salmon, drained
- 1 tbsp. capers, drained
- 1 pepper, sliced
- 1 stick celery, sliced
- 250g cherry tomatoes, halved
- 100g rocket leaves
- 100g mixed lettuce
- Handful of basil leaves
- 3 tbsp. extra virgin olive oil
- 5 tbsp. balsamic vinegar.

## Methods:

1. Cook the pasta according to the instructions on the packet, drain and rinse with cold water.
2. Add the remaining prepared ingredients to the pasta.
3. Toss and decorate with fresh basil leaves.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)

340

FAT

14g

FAT (OF WHICH SATURATES)

2g

CARBOHYDRATE

32g

CARBOHYDRATE (OF WHICH SUGARS)

6g

PROTEIN

21g

FIBRE

7g

# LIGHT MEALS & SANDWICHES

---

Baked potatoes with variety of fillings

Tortilla pizza




Healthy omelette

Chicken pesto wrap

Recipe list of different healthy sandwich fillings



# BAKED POTATOES

 Serves: 4  Prep time: 5 - 10 mins  Cooking Time: ~1 hour

## Ingredients:

- 4 large baking potatoes, washed and skin left on
- 2 tsp. olive oil.

## Toppings:

- Flaked cooked/tinned salmon, tbsp. low fat mayo, 1 tsp. capers and squeeze lemon
- Tinned tuna, 1 tbsp. low fat mayo, handful tinned sweetcorn (drained)
- Baked beans
- Left over chilli con carne (page 91) or bean chilli (page 81)
- Chunky salsa (page 97) and grated cheese
- Chicken, spring onions and 1 tbsp. low fat cream cheese.

## Methods:




1. Heat oven to 220C/200C fan/gas 7. Rub a little oil over each potato and put on the top shelf of the oven. Bake for 20 mins, then turn down the oven to 190C/170C fan/gas 5 and bake for 45 mins-1 hr until the skin is crisp and the flesh soft.
2. Cut a cross in the cooked potato to split open and top with a topping of your choice. Alternatively scoop out the potato filling, mix with your topping of choice and refill the baked potato.

## NUTRITION INFORMATION

Amount per serving

	ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
Bean Chilli	370	4g	0.7g	67g	16g	14g	16g
Beef Chilli	305	6g	1.4g	46g	6g	13g	8g
Chicken, onion & cheese	320	4g	1.6g	43g	4g	27g	6g
Salmon & capers	340	8g	1.3g	42g	3g	24g	5g
Tuna & sweetcorn	330	5.3g	0.8g	46g	5g	23g	6g
Baked beans	344	1.4g	0.4g	66g	9g	15g	15g

# TORTILLA PIZZA

 Serves: 4  Prep time: 5 mins  Cooking Time: <10 mins

## Ingredients:

- Mix 1 tbsp. passata with 1 tsp. tomato puree for each wrap
- 4 wholemeal soft tortilla wraps
- 1 x 125g ball of reduced-fat mozzarella, drained.

## Toppings:

- 80 g mushrooms
- ½ tsp. smoked paprika
- 1 small red onion, finely sliced
- ½ fresh pepper, sliced
- Rocket to garnish pizzas.

Serve with a large side salad.

## Methods:




1. Preheat the oven to 220°C/Fan 200°C.
2. Place the tortillas on a clean, dry surface. The tortillas will form the base of the pizza. Using the back of a spoon to evenly coat the tortillas with the tomato sauce, leaving a 2cm edge for the crust.
3. Tear the mozzarella into small pieces. Add a quarter to each pizza, spreading the pieces out evenly.
4. If using smoked paprika, place the sliced mushrooms into a bowl and sprinkle the paprika over the top. Toss gently to coat all slices with the paprika.
5. Add the slices of mushroom, red onion and pepper to all the pizzas.
6. Carefully remove the baking trays from the oven. Transfer the pizzas onto the trays and place them back into the oven. Cook for 3-5 minutes, until the cheese has melted and the crusts are golden.
7. Serve with a side salad.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
370	14g	5.8g	43g	14g	14g	9g

# HEALTHY OMELETTE

 Serves: 2  Prep time: 10 mins  Cooking Time: <10 mins

## Ingredients:

- 2 eggs
- 3 egg whites
- Freshly ground black pepper
- 1 tsp. oil
- 2 spring onions, chopped
- 2 large tomatoes, chopped
- 80g mushrooms, sliced
- 80g spinach leaves
- 40g grated low-fat cheddar cheese.

## Methods:

1. Whisk the eggs and egg whites together and season with black pepper.
2. Add oil to a large frying pan and heat over medium-high heat.
3. Add tomatoes, mushrooms and onions and cook, stirring once or twice, until softened, 1 to 2 minutes. Place spinach on top, cover and let wilt, about 30 seconds. Stir to combine.
4. Add the egg mixture to the frying pan, covering all of the vegetables. Sprinkle cheese over if desired. Cook over a medium heat until completely set.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
200	10.8g	3.7g	4g	4g	21g	2.2g

# CHICKEN PESTO WRAP

 Serves: 2  Prep time: 10 mins

## Ingredients:

- 1 small chicken breast, boiled/grilled without skin, shredded
- 2 wholemeal tortilla wraps
- 2 tbsp. of low-fat mayonnaise
- 1 tsp. pesto
- Freshly ground black pepper
- ½ large red pepper, sliced
- 1 small tin of sweetcorn, drained
- 60g lettuce
- 60g cucumber, sliced in strips.

## Methods:

1. Mix together the shredded chicken, and low fat mayonnaise with the pesto. Season with pepper.
2. Divide the chicken mixture between the wraps. Top with the red pepper, sweetcorn, cucumber and lettuce leaves.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
345	13g	2.4g	36g	8g	19g	6g

## HEALTHY SANDWICH FILLINGS: PICK & MIX

Everyone has their own favourite sandwiches but below we have listed various types of breads, spreads and fillings that will allow you to build your own sandwich and be aware of the nutritional composition.

Examples of breads	Portion control (1 portion should= 125-175 kcal)	Average calories per portion
Brown bread/ soda bread	2 small/ 1 ½ medium slices	158/175
Wholemeal/wholegrain loaf	2 thin slices	180
Wholemeal wrap	1 small wrap/1 medium wrap	124/170
Brown roll	1 medium roll or ½ large roll	150/100
Brown pitta	1 oval pitta	174
Wholemeal bagel	¾ large bagel or 1 bagel 'slim'	162/120
Rye crisp breads	4 pieces	136
Brown scone	1 small scone	132

Examples of spreads	Portion control	Average calories per portion
Butter	1 tsp.	67
Low-fat spread	1 tsp.	36
Low-fat/ 'lighter than light' mayonnaise	1 tbsp.	63/15
Low-fat cream cheese spread	1 tbsp.	78
Cottage cheese	1 tbsp.	41
Hummus/ reduced fat hummus	1 tbsp.	89/62
Tomato ketchup (reduced sugar and salt)	1 tbsp.	14
Relish	1 tbsp.	71
Chutney	1 tbsp.	41
Salsa	1 tbsp.	27
Pesto	1 tsp.	34
Mashed avocado	1 tbsp.	57
Peanut butter (no added salt)	1 tsp.	47
Marmalade (no added sugar)	1 tbsp.	45
Jam (no added sugar)	1 tbsp.	45

Examples of meat/fish/alternatives	Portion control= 2 servings/ day 1 serving shown below	Average calories per portion (for example given)
Poultry e.g. grilled chicken (1/2 palm of the hand)	50-75g cooked 135	158/175 180
Fish- tinned/cold fish e.g. tinned tuna	100g	99
Cooked soy/tofu e.g. steamed tofu	100g	73
Egg e.g. hard boiled	2 eggs	144
Low-fat cheese e.g. cheddar	Match box size (only choose cheese max. once a day)	93
Beans or lentils e.g. baked beans (no added sugar)	¾ cup	70

### Bulk your sandwich up with lots of vegetables/ fruit:

#### Examples:

- Apple
- Beetroot
- Celery
- Cucumber
- Grated cabbage
- Grated carrot
- Kale
- Lettuce
- Onion/spring onion
- Peppers
- Pineapple
- Radishes
- Rocket
- Spinach leaves
- Sweetcorn
- Tomato



### Sandwich ideas:

- Tuna and sweetcorn:** Low fat or 'lighter than light' mayonnaise mixed with drained tinned tuna (in spring water) and a handful of sweetcorn.
- Egg salad:** Low fat or 'lighter than light' mayonnaise mixed with mashed/sliced hardboiled eggs and green leaves.
- Turkey salad:** Choice of spread with sliced turkey and mixed salad.
- Beans on toast:** Toasted wholemeal/ wholegrain bread topped with hot baked beans.
- Avocado:** Light cream cheese with slices of avocado, cucumber and rocket leaves.
- Cheese and onion:** Relish/chutney, low fat cheese, spring onions, sliced tomatoes and mixed salad leaves.
- Creamy salmon:** Drained, tinned salmon mixed with a tsp. capers (rinsed), low fat mayo/low fat cream cheese and mixed salad leaves.
- Grilled vegetables:** Wholemeal wrap with a tsp. pesto or a tbsp. crumbled feta, an assortment of grilled vegetables (e.g. peppers, courgette and tomatoes) and salad leaves.
- Waldorf salad:** Grilled chicken, sliced/grated apple, grapes, celery, low-fat mayonnaise and mixed salad.
- Hummus:** Hummus with layers of sliced tomato, cucumber, red onion and spinach leaves.
- Curried chicken:** Chicken coated with curry spices and grilled. Slice and mix with low-fat mayo, grated carrot, 1 tsp. currants and mixed leaves.
- Greek:** Avocado, tomato, cucumber, red onion, feta, mint and mixed leaves.
- Grilled pepper:** Cottage cheese, grilled red peppers and spinach leaves.
- Prawn cocktail:** Mix 1 tbsp. of low-fat mayo, 1 tsp. ketchup, 1 drop of Worcestershire sauce and a squeeze of lemon to make a quick marie-rose sauce. Mix with cooked prawns, cucumber, cherry tomatoes and crisp lettuce and serve on brown/soda bread.
- Tandoori chicken:** Grilled chicken coated with tandoori spices, cucumber, spinach leaves and a tbsp. low fat natural yogurt.
- Mexican:** Grilled chicken, salsa, sweetcorn, iceberg lettuce, coriander and a squeeze of lime juice.
- Roasted veggies and hummus:** Chop a mix of peppers, onions, tomatoes and other favourite veg of choice, then roast with a sprinkle of dried mixed herbs. Once cooked combine with hummus and spinach in your bread of choice.
- Pesto chicken:** ½ tsp. pesto mixed with a tbsp. low-fat mayo, shredded chicken pieces, red pepper, cherry tomatoes and green leaves.
- Mackerel:** Toasted wholemeal/wholegrain bread, topped with tinned mackerel in tomato sauce and green leaves.
- Banana:** Toasted wholemeal/wholegrain bread and top with 1 tbsp. jam or 1 tsp. peanut butter. Top with mashed banana.



## MAIN MEALS

Pasta arrabbiata

Bean chilli

Egg-fried rice

Vegetarian shepherd's pie

Roast tomato and orzo bake

Spicy rice and lentil one pot

Chilli con carne

Spiced pork tray bake

Chicken stir-fry with cashew nuts

Turkey fajitas

Creamy chicken and tomato bake

Seared haddock with  
horseradish aioli


Fish cakes

Grilled lemons centred salmon

Glazed salmon

Mediterranean fish tray bake

# PASTA ARRABBIATA

 Serves: 4  Prep time: 10 mins  Cooking Time: 15 mins

## Ingredients:

- 400g brown pasta
- 2 heaped tsp. dried oregano
- 2 heaped tsp. dried thyme
- 2 heaped tsp. chilli flakes
- 4 garlic cloves, crushed
- 2 tbsp. olive oil
- 24 cherry tomatoes (~350g), cut into quarters
- 2 x 400g tin chopped tomatoes
- 400g mushrooms, washed and sliced
- 2 tbsp. tomato puree
- 100g spinach
- Juice 1 lemon.

## Methods:

1. Cook pasta as per packet instructions.
2. Heat the dried oregano, thyme, chilli and garlic in a frying pan with the oil.
3. Add the mushrooms, tomatoes, tinned tomatoes and tomato puree. Cook for 5-7 minutes, until the cherry tomatoes are soft.
4. Stir in the spinach and allow to wilt.
5. Add the lemon juice and season with pepper.
6. When the pasta is cooked, stir it into the sauce.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)

448

FAT

17g

FAT (OF WHICH SATURATES)

2g

CARBOHYDRATE

60g

CARBOHYDRATE (OF WHICH SUGARS)

18g



PROTEIN

17g

FIBRE

15g

# BEAN CHILLI

 Serves: 8  Prep time: 20-25 mins  Cooking Time: 30-40 mins

## Ingredients:

- 1 tbsp. olive or rapeseed oil
- 2 onions, peeled and chopped
- 4 cloves garlic, peeled and crushed
- 1 large red pepper, diced
- 1 large green pepper, diced
- 200g mushrooms, washed and sliced
- 2 small carrots, diced
- 2 sticks celery, diced
- 1 tsp. chilli powder (reduce or increase to taste)/ or use finely chopped fresh chilli
- 1 tsp. cumin
- 1 tsp. ground coriander
- 2 x 400g tins chopped tomatoes
- 1 tin kidney beans, drained
- 1 tin baked beans in tomato sauce
- 100g frozen sweet corn
- 1 tin chickpeas, drained
- 4 tbsp. tomato puree
- Chopped coriander to serve
- Serve with a portion of brown rice or a baked potato.

## Methods:

1. Heat oil in large pan or wok. Add all the prepared vegetables and spices and sauté for 10 min until the vegetables are soft.
2. Add the remaining ingredients, stir to mix well. Cover and leave to simmer for 20 minutes.
3. Sprinkle with chopped coriander and serve with brown rice.
4. Note: This dish freezes well. Can vary beans used depending on what you have in your cupboard e.g. cannellini beans/ butter beans.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
375	5g	1g	66g	13g	15g	13g

# EGG-FRIED RICE

 **Serves:** 4  **Prep time:** 10 mins  **Cooking Time:** 8 mins

## Ingredients:

- 200g brown rice
- 150g frozen peas
- 2 large eggs
- Freshly ground black pepper
- 2 tbsp. sunflower oil
- 1 red pepper, deseeded and diced
- 8 spring onions, trimmed and thinly sliced
- 2 garlic cloves finely chopped
- 2 tsp. five-spice powder
- 3 tbsp. reduced-sodium soy sauce mixed with 2 tbsp. water
- 140g bean sprouts
- 1 tbsp. snipped fresh chives
- 50g roasted cashew nuts (unsalted.)

## Methods:

1. Cook brown rice and frozen peas as per packet instructions.
2. While they are cooking, beat the eggs and season with freshly ground black pepper.
3. Heat 1 tbsp. of oil in a frying pan over medium-high heat until hot. Add eggs and cook for 2 minutes. Remove the thin omelette to a chopping board and thinly slice.
4. Add remaining oil, pepper, onion, garlic and spices to wok. Stir-fry for 3-4 minutes.
5. Reduce the heat and stir in the soy sauce mix, beansprouts, sliced omelette, cooked rice and peas. Gently stir-fry for 1-2 minutes or until heated through. Finally, stir in the chives and cashew nuts and serve.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
445	17g	3g	56g	9g	16g	8g

# VEGETARIAN SHEPHERD'S PIE

 Serves: 6  Prep time: 20 mins  Cooking Time: 1 hour 30 mins

## Ingredients:

- 2 tbsp. olive oil
- 2 onions, chopped
- 2 garlic cloves, finely chopped
- 2 carrots, chopped into small cubes
- 300g piece of turnip, chopped into small cubes
- 125g dried red lentils
- 400g can plum tomatoes
- 1 tbsp. sun-dried tomato paste
- 350ml low sodium/ homemade vegetable stock
- Large handful spinach leaves
- 6 potatoes, peeled and cut into large chunks
- 30g butter
- 5 tbsp. semi-skimmed/ skimmed milk
- Freshly ground black pepper
- 100g low fat cheddar cheese, coarsely grated.

## Methods:

1. Heat 1 tablespoon of the oil in a large, non-stick pan. Add the onions and garlic and fry for 8–10 minutes over a medium–high heat or until starting to turn golden, stirring occasionally.
2. Pour the remaining tablespoon of oil into the pan, tip in the carrots and swede, and fry for 3 minutes.
3. Reduce the heat to medium. Stir in the lentils, tomatoes, sun-dried tomato paste, and stock. Season and simmer, covered, for 35–40 minutes over a low heat, until the carrots, swede and lentils are tender.
4. Remove from the heat, stir in the spinach, and let it wilt. Pour the mixture into the baking dish. Leave to cool. Preheat the oven to 200°C (fan 180°C/400°F/Gas 6).
5. Put the potatoes into a large pan and cover with cold water. Bring to the boil and simmer for 15–20 minutes or until tender. Drain well.
6. Put the butter and milk in the pan and warm through over a low heat. Remove from the heat, return the potatoes to the pan, and mash with the milk and butter, then whisk until smooth. Season with pepper, then stir in the cheese.
7. Spread the mash over the filling and bake for 30–40 minutes until golden and bubbling.



## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
376	14g	4g	44g	13g	16g	8g



# ROAST TOMATO AND ORZO BAKE

 **Serves:** 4  **Prep time:** 15 mins  **Cooking Time:** 40 mins

## Ingredients:

- 350g ripe tomatoes, chopped into quarters
- 1 tbsp. olive oil
- 1 onion, chopped
- 1 clove garlic, chopped
- 150g courgette, ends trimmed off and grated
- 2 celery stalks, trimmed and diced
- 1-2 tsp. fennel seeds
- 1 sprig of rosemary, finely chopped
- 1 tbsp. tomato puree
- 300g orzo pasta
- 600 mls chicken/vegetable stock
- ½ bunch fresh parsley, roughly chopped
- 30g parmesan, grated.

## Methods:




1. Preheat the oven to 190°C/ Gas mark 5.
2. Place the tomatoes on a baking tray, drizzle over half the oil and season with pepper. Roast in the preheated oven for 20 minutes or until the tomatoes begin to collapse and colour a little.
3. Meanwhile, heat the remaining oil in a large, ovenproof casserole dish over a medium to high heat. When hot add the onion, garlic, courgette and celery. Keep stirring the vegetables and cook for approximately 10 minutes until they have softened.
4. Add the fennel seeds, rosemary and tomato puree.
5. Remove the roasted tomatoes from the oven but don't turn off the heat. Slide the tomatoes and their juices straight from the tray into the casserole.
6. Stir in the orzo and add the stock. Bring the pot up to a simmer.
7. Cover with lid and bake in the preheated oven for 20 mins or until all the liquid has been absorbed and the orzo is cooked through.
8. Let the pasta sit for 5 minutes and then stir through the parsley and parmesan before serving.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
400	8g	3g	62g	7g	18g	5g

# SPICY RICE AND LENTIL ONE POT

 Serves: 8  Prep time: 10 mins  Cooking Time: 50 mins

## Ingredients:

- 1 tbsp. olive oil
- 1 large onion, peeled and chopped
- 2 tsp. cumin seeds
- 2 tsp. coriander seeds
- ½ teaspoon of black peppercorns
- 2 garlic cloves, peeled and chopped
- 500g green lentils
- 300g wholegrain rice
- 3 tins of chopped tomatoes
- 1000ml low salt vegetable stock.

## Garnish:

- 1 tbsp. olive oil
- 1 large onion, thinly sliced
- 1 lemon cut into wedges
- Coriander sprigs
- Low fat Greek style yogurt.

## Methods:

1. Heat the oil in large pan, add onion and fry for 5 mins until lightly browned. Meanwhile crush cumin, coriander seeds and peppercorns (using pestle and mortar) and add these plus the garlic to the pan. Fry for 2 minutes, add lentils rice and then stir.
2. Add tomatoes and stock and bring to the boil
3. Cover and simmer for 40 minutes until the lentils are tender
4. To make the garnish, heat the oil in a frying pan, add the sliced onion and fry over a high heat for 5 mins until crisp. Drain on kitchen paper and spoon onion over the lentil mixture and garnish with lemon wedges and coriander. Serve with a dollop of low fat Greek style yogurt.




## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
383	5g	0.6g	64g	9g	21g	10g



# CHILI CON CARNE

 Serves: 4  Prep time: 10 mins  Cooking Time: 35-40 mins

## Ingredients:

- 1 tsp. oil
- 1 onion, finely chopped
- 500g lean beef mince (<5% fat/ 95% fat-free)
- 2 garlic cloves, finely chopped/crushed
- 2 fresh chillies, deseeded and chopped
- 2 tsp. ground cumin
- 1 tsp. ground coriander
- 1 tsp. paprika
- Pinch cayenne pepper
- 400g tin chopped tomatoes
- 1 level tbsp. tomato puree
- 300ml beef stock (homemade or made using low sodium stock cube)
- Freshly ground black pepper
- 400g can red kidney beans, drained
- Chopped fresh coriander leaves to garnish
- Serve with a baked potato (1 large per person) or brown rice (~60 raw/150g cooked brown rice per person).

## Methods:




1. Fry the onions gently over a low heat in 1 tsp. oil until softened. Add the mince and stir fry for 5-6 minutes.
2. Add the garlic, chillies and all the spices and continue to fry for 2-3 minutes.
3. Add the tinned tomatoes, tomato purée and stock. Stir well and bring to the boil. Reduce the heat and simmer gently for 20 minutes, until the liquid is slightly reduced.
4. Add the drained kidney beans. Heat through gently for about 5 minutes.
5. Season with pepper and serve garnished with chopped coriander leaves.
6. Serve with a baked potato or a portion of cooked brown rice.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	SALT	FIBRE
505	8.2g	3g	59g	10g	41g	0.5g	10g

# SPICED PORK TRAY BAKE

 Serves: 4  Prep time: 20 mins  Cooking Time: 40 mins

## Ingredients:

- 6 lean pork chops, fat trimmed off (500g)
- 16 baby potatoes, chopped in half (600g)
- 4 small parsnips peeled and cut into chunks
- 4 small carrots, peeled and diced
- 1 red pepper, seeded and chopped
- 1 butternut squash, peeled and cut into chunks
- 3 large red apples, cored and quartered
- 1 tsp. fennel seeds
- 2 tsp. coriander seeds
- 2 garlic cloves, finely chopped
- 1 tsp. ground turmeric
- 3 tbsp. olive oil
- 1 tbsp. honey
- Black pepper.

## Methods:

1. Preheat the oven to 190°C/375°F/Gas Mark 5.
2. Place the pork chops, with fat removed, in a large roasting tin with the potatoes, apples and vegetables.
3. In a zip lock bag crush the fennel and coriander seeds together and then add this mixture to the garlic, turmeric, oil, honey and black pepper.
4. Brush the mixture over the meat and vegetables. Bake in the oven covered with tin foil for 35-40 minutes, turning the vegetables and meat once, until golden brown and tender.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
444	10g	0.9g	56g	29g	33g	12g

# CHICKEN STIR-FRY WITH CASHEW NUTS

 Serves: 6  Prep time: 20 mins  Cooking Time: 20 mins (plus time for marinating)

## Ingredients:

### Marinade:

- 2 tsp. corn flour mixed with 2 tbsp. water & 2 teaspoons light reduced sodium soy sauce
- 4 chicken fillets cut in chunks (400g)
- 60g unsalted cashew nuts
- 2 tbsp. sunflower oil
- 2 onions, peeled and cut in chunks
- 2 red peppers, washed and cut in chunks
- 2 green peppers, washed and cut in chunks
- 2 cloves garlic, peeled and crushed
- 1 tablespoon ginger, peeled and grated
- 3 spring onions, peeled and sliced
- 1 tbsp. oyster sauce
- 1 tsp. soy sauce
- 100 ml homemade/reduced sodium chicken stock or water
- 2 tsp. corn flour mixed with 2 tbsp. water
- Finely shredded spring onion to garnish.

## Methods:

1. Coat the chicken in the marinade mixture and allow to marinate for minimum 30 minutes.
2. Toast the cashew nuts for 2-3 minutes in a dry, non-stick frying pan, stirring regularly until they are golden brown in colour.
3. Heat half the oil in a wok. Fry the onion, red & green peppers, garlic, ginger and spring onions for about 2 minutes. Remove to a plate.
4. Heat the remaining oil and add the chicken with the marinade. Wait a few seconds before moving to allow the cornflour coating to set. If you start to move the chicken straight away it will stick to the wok.
5. Stir fry the chicken for about 5 minutes. Add the vegetables and the sliced spring onions back into the wok
6. Turn down the heat and add the oyster sauce, soy sauce and the chicken stock.
7. Add the cornflour mixture and bring to the boil while stirring until thickened.
8. Finally add the shredded spring onions and the toasted cashew nuts.
9. Serve with boiled wholegrain rice.



## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
463	14g	2g	56g	8.4g	26g	6g



# TURKEY FAJITAS

 **Serves:** 4  **Prep time:** 30 mins (plus time for marinating)  **Cooking Time:** 15 mins

## Ingredients:

- 400g lean turkey breast, cut into strips
- 2 red peppers and 2 green peppers, cut into strips
- 2 onions, cut into strips

## Marinade:

- 2 cloves of garlic, crushed
- 1 tbsp. olive oil
- 1 tbsp. smoked paprika
- 1 tbsp. ground coriander
- 1 tsp. cumin
- Pinch of cracked black pepper
- Juice of 1 lime
- 3-4 drops of tabasco (if desired)

## Salsa:

- 225g of cherry tomatoes, chopped
- 1 small red onion, peeled and finely chopped
- 1 red chilli (or ½ a chilli depending on the level of heat desired)
- 1 handful of coriander, roughly chopped
- Juice of 1 lime

## To serve:

- 100 mls low fat natural yogurt
- Mixed green salad
- 6 large or 12 small wholegrain soft tortillas wraps.

## Methods:




1. Pre-heat the oven to 200°C and wrap the tortillas in foil.
2. Add the turkey, onion and peppers to a mixing bowl with the marinade ingredients.
3. Heat a griddle pan until hot and add the turkey, vegetable and marinade mixture. Keep them moving over a high heat using tongs so you get a charring effect and until turkey is fully cooked.
4. Put the tortillas in the oven wrapped in the foil and heat for roughly 8 minutes.
5. To make the salsa, chop the ingredients and combine.
6. Once the turkey is cooked through tip the pan contents into a large bowl and serve with the heated tortillas, green salad, natural yogurt and homemade salsa.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	SALT	FIBRE
394	11g	2g	44g	14g	25g	1g	9g

# CREAMY CHICKEN AND TOMATO BAKE

 Serves: 4  Prep time: 10 mins  Cooking Time: 35-45 mins

## Ingredients:

- 2 tbsp. olive oil
- 1 onion, finely chopped
- 2 garlic cloves, crushed
- 1 x 400g tin cherry tomatoes
- Freshly ground black pepper
- 1 teaspoon sugar
- 4 tablespoons half fat crème fraiche (or yogurt)
- Fresh basil
- 4 chicken breasts (400g)
- Serve with short pasta, brown rice or potatoes roasted with olive oil and rosemary and green salad
- Brown rice: 70g per person raw.

## Methods:

1. Fry onion in 2 tablespoons of olive oil until softened but not coloured.
2. Add garlic, tomatoes, pepper and sugar, then simmer for 10-15 minutes.
3. Take off the heat and stir in the crème fraiche and half of the fresh basil, roughly torn.
4. Place chicken in a baking dish and pour over the sauce.
5. Cook at 190°C for 25-30 minutes or until the chicken is cooked through.
6. Scatter over the remaining basil.
7. Serve with brown rice, wholegrain pasta or potatoes roasted with olive oil and rosemary.




## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
475	14g	5g	51g	11g	36g	9g



# SEARED HADDOCK WITH HORSERADISH AIOLI

 Serves: 4  Prep time: 10 mins  Cooking Time: 15 mins

## Ingredients:

### For the aioli:

- 5 tbsp. low-fat mayonnaise
- 2 tsp. horseradish sauce
- ¼ tsp. lemon juice
- 1 garlic clove, minced
- ½ tsp. tomato purée
- Black pepper

### For the fish:

- 1 tbsp. and 2 tsp. rapeseed oil
- 4 skinless haddock fillets, about 120g each
- Black pepper
- 100g dry whole meal breadcrumbs
- 2 handfuls of fresh parsley, chopped
- Juice of ½ lemon
- Serve with roast garlic baby potatoes (see page 113)
- Mixed salad.

## Methods:


1. Preheat the oven to 220°C/200°C fan/gas mark 7. Mix the aioli ingredients in a small bowl and season with black pepper. Cover and refrigerate.
2. Heat the oil in a large, non-stick frying pan over a medium-high heat. Pat the fish fillets dry with kitchen paper and season with black pepper. When the pan is hot, cook the fillets for two minutes; be careful to not move them.
3. When they are nicely browned, flip the fillets and remove the pan from the heat. Transfer the fish to an ovenproof baking dish.
4. Spread the seared side of each fillet with some aioli mixture and then top with a layer of breadcrumbs.
5. Place the tray in the oven and bake for 10-15 minutes, or until the fish is cooked through.
6. Meanwhile, combine the parsley leaves, lemon juice and oil in a bowl.
7. When the fish is cooked, remove the tray from the oven and transfer the fillets to plates. Top each with some of the parsley salad and serve warm with a side of roast garlic baby potatoes (see page 113)

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
507	15g	2g	62g	7g	30g	7g

# FISH CAKES

 **Serves:** 6 (make 12 small fish cakes and serve 2 per person with large salad)

 **Prep time:** 20 mins  **Cooking Time:** 30 mins

## Ingredients:

- 200g cod fillet
- 200g salmon fillet
- 500g potatoes boiled
- 100ml milk
- 25g butter
- 50g spring onions finely chopped

## Coating:

- 100g plain flour
- Freshly ground black pepper
- 2 eggs
- 30ml milk
- 175g breadcrumbs approximately.

## Methods:

1. Steam the fish until cooked. Remove all skin, ensure there are no bones and flake fish.
2. Boil the potatoes and mash when cooked with warm milk.
3. Cook the spring onions in the butter until softened.
4. Mix all ingredients together, season and shape into fish cakes.
5. Coat in flour, then egg and then breadcrumbs.
6. Pan fry until golden brown or bake in the oven until heated through
7. Serve with a dressed green salad and a crusty brown roll/ baby potatoes (see page 113) / baked potato wedges ( see page 115).




## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	SALT	FIBRE
415	13g	5g	45g	8g	27g	0.4g	6g



# GRILLED LEMON SCENTED SALMON WITH CHICKPEA, TOMATO & SPINACH RAGOUT

 Serves: 4  Prep time: 10 mins  Cooking Time: 35 mins

## Ingredients:

- 1 tsp. vegetable oil
- 6 large plum tomatoes, roughly chopped
- 1 small onion, finely diced
- 2 cloves garlic, finely chopped/ crushed
- Fresh rosemary, parsley & thyme, chopped
- Zest & juice of one lemon
- 1 bag of baby spinach (80g)
- 2 x 400g tins chickpeas, drained
- 4 salmon fillets
- Serve with a portion champ mash (see page 105).

## Methods:




1. Fry the onion gently on a medium heat, without colouring, in 1 tsp. oil. Add garlic & chopped herbs & cook for 2-3 mins. Add chopped tomatoes & cook on a low heat for 30 minutes.
2. Add chickpeas, a pinch of lemon zest, a teaspoon of lemon juice, and spinach & cook for a further 2-3 minutes until spinach has wilted and is combined into ragout.
3. Place salmon fillet on parchment paper & sprinkle over some lemon zest & fresh chopped herbs & bake in a hot oven at 180°C for 10-15 mins until cooked through.
4. To serve, spoon chickpea ragout into bowl, place salmon fillet on top. Serve with a wedge of lemon and a portion of champ mash.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
490	18g	5g	48g	8g	32g	11g

# GLAZED SALMON

 **Serves:** 4  **Prep time:** 15 mins (plus time for marinating)  **Cooking Time:** 20 mins

## Ingredients:

- 4 salmon fillets, skin removed.

### Glaze:

- Juice from 1 tin of pineapple (Pineapple in natural juices not syrup) or juice of one fresh pineapple
- 2 tbsp. reduced salt soy sauce
- 2 garlic cloves, crushed
- Pinch of cayenne pepper.

### Salsa:

- 1/2 fresh or 1 tin pineapple cut into chunks
- 1 avocado, pitted and diced
- 1 jalapeno pepper, deseeded and diced
- 1/2 small red onion, diced
- 4 tbsp. fresh coriander, chopped
- Juice of 1/2 a lime.

To serve: boiled brown rice.

## Methods:



1. In a bowl combine the ingredients for the glaze, stir together and pour over the salmon in a baking dish. Cover and chill for at least 30 minutes.
2. Combine all of the salsa ingredients and mix well. Refrigerate until ready to serve.
3. Remove the salmon from the marinade, place on a baking tray, and bake in a preheated oven at 200°C/gas mark 6 for 20 minutes.
4. Cook the rice according to packet instructions.
5. Meanwhile, place marinade in a saucepan and boil on a med-high heat for 5-6 minutes, until reduced by half.
6. Half way through cooking, pour the reduced marinade over the salmon fillets and return to the oven. Cook uncovered until the salmon is fully cooked through.
7. Serve the salmon with salsa and boiled brown rice.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
457	17g	3g	54g	14g	22g	5g

# MEDITERRANEAN FISH TRAY BAKE

 Serves: 4  Prep time: 15 mins  Cooking Time: 30-35 mins

## Ingredients:

- 800 g baby potatoes
- 250 g cherry tomatoes
- 1 courgette, chopped
- 2 red peppers, chopped
- 1 red onion, peeled and cut into wedges
- Handful of black olives (stone removed), rinsed
- 4 cloves of garlic, peeled and quartered
- Sprigs of fresh thyme or rosemary
- 1-2 tbsp. olive oil
- 4 x 120 g fish fillets of your choice e.g. salmon, cod, hake etc.

## Dressing:

- Small handful fresh basil leaves
- Juice ½ lemon
- ½ a small clove of garlic
- ½ teaspoon Dijon mustard
- 4 heaped tbsp. Low fat Greek style yoghurt
- ½ lemon sliced into rounds
- 1 tbsp. extra virgin olive oil.

## Methods:

1. Pre-heat the oven to 200°C/gas mark 6.
2. Scrub the potatoes clean and halve any large ones.
3. Arrange the potatoes and all of the vegetables in a baking tray lined with grease-proof paper and scatter over the olives, herbs, garlic and 1-2 tbsp. of olive oil.
4. Place in oven and cook for 15- 20 minutes.
5. Remove tray from the oven and place fish fillets on top of the vegetables, along with the rounds of lemon. Return the tray to the oven and continue to cook for a further 15-20 minutes or until the potatoes, vegetables and fish are cooked through.
6. While the tray bake is cooking, make the basil & mustard yoghurt dressing. Crush the basil and scrape into a bowl. Add 1/2 clove crushed garlic, mustard, yoghurt and the juice of ½ a lemon. Add 1 tablespoon of olive oil, mix well and serve drizzled over the salmon tray bake when cooked.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
405	14g	2g	39g	12g	31g	8g



## SIDE DISHES




Roast garlic baby potatoes

Spicy potato wedges

Champ mash potato

Brown bread with seeds

# ROAST GARLIC BABY POTATOES

 Serves: 4  Prep time: 10 mins  Cooking Time: 30 mins

## Ingredients:

- 800g baby potatoes
- 2 tbsp. olive oil
- 2 tbsp. fresh rosemary, finely chopped
- 2-3 cloves garlic, chopped

## Methods:




1. Rinse the baby potatoes and chop in half.
2. Place in a roasting dish and use enough olive oil to coat potatoes lightly (2 tbsp.)
3. Stir in chopped garlic and season with herbs, salt and pepper.
4. Roast in the oven for 25-35 minutes at 180°C.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
193	6g	0.5g	30g	2g	3g	4g

# SPICY POTATO WEDGES

 Serves: 4  Prep time: 10 mins  Cooking Time: 30 mins

## Ingredients:

- 4 large potatoes
- 2 tbsp. olive/sunflower/rapeseed oil
- Salt and freshly ground black pepper
- 1-2 tsp. Cajun seasoning.

## Methods:




1. Scrub potatoes well and cut into wedges.
2. Cut into wedges. Rinse, dry and put on a baking tray
3. Toss in oil and season with salt & pepper
4. Add Cajun seasoning
5. Cook at 200°C for approximately 30- 40 minutes.

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
234	7g	0.9g	38g	2g	4g	5g

# CHAMP MASH POTATO

 Serves: 4  Prep time: 10 mins  Cooking Time: 30 mins

## Ingredients:

- 600g potatoes peeled & cut in even chunks
- 100 ml semi-skimmed milk approximately
- 15g butter
- 4 spring onions, chopped
- Seasoning.

## Methods:

1. Boil the potatoes until cooked
2. Drain and mash
3. Warm the milk and stir into potatoes, season
4. Cook the spring onions gently in the butter and beat into the potatoes

## NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)

153

FAT

4g

FAT (OF WHICH SATURATES)

2g

CARBOHYDRATE

25g

CARBOHYDRATE (OF WHICH SUGARS)

3g

PROTEIN

4g

FIBRE

3g

## BROWN BREAD WITH SEEDS

 **Serves:** Makes 1 loaf  **Prep time:** 10 mins  **Cooking Time:** 45 mins

### Ingredients:

- 400g brown flour
- 100g white flour
- 25g bran
- 50g mixed seeds
- 1 level tsp. bread soda
- 1 egg
- 1 tbsp. oil
- 1 tsp. treacle
- 425 ml buttermilk.

### Methods:

1. Place dry ingredients in a bowl.
2. Mix oil, egg, treacle and buttermilk together.
3. Add wet ingredients to dry and mix well.
4. Please in a greased loaf tin.
5. Bake at 200°C for 45 minutes.

### NUTRITION INFORMATION

Amount per serving

ENERGY (KCAL)	FAT	FAT (OF WHICH SATURATES)	CARBOHYDRATE	CARBOHYDRATE (OF WHICH SUGARS)	PROTEIN	FIBRE
165	3g	0.6g	27g	2g	7g	3g

## HEALTHY SNACKS

Choosing snacks that are healthy and low in calories is challenging, particularly for those on the go a lot and those who spend a lot of time outside the home. It is hugely tempting to select the high calorie, high fat, high sugar options on sale at every shop checkout. These snacks often are empty calories, contributing to weight gain and providing little to no nutrients for health. Being prepared in advance and bringing healthier options with you can help minimise the temptation to snack on high fat and high sugar foods. Below is a list of options that are lower in calories and also snacks that provide many other important nutrients for health.

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### Healthy snack list :

- Piece of fruit
- Handful berries
- Fruit Salad
- Fruit skewer/ fruit skewer with low fat cheese
- Chopped raw vegetables with salsa dip
- ½ an avocado
- Low-fat yogurt
- Stewed fruit with yogurt
- Cup of homemade soup
- Glass of low-fat milk
- Frozen low-fat yogurt
- Bowl of homemade popcorn (not salted)
- Roasted chickpeas with spices
- Small handful of unsalted nuts e.g. peanuts, almonds, hazelnuts, cashews walnuts
- Small handful dried fruit
- Overnight oats
- Small bowl of wholegrain cereal
- Small brown scone with tsp. no added sugar jam/nut butter
- 1 mini-brown bagel with low-fat/homemade hummus/salsa/healthy dip/matchbox-size low-fat cheese/ low-fat cheese spread/ no added-sugar jam
- Rice cakes/wholemeal crisp bread topped with tsp. nut butter/jam
- Rice cakes/wholemeal crisp bread topped with mashed banana
- Rice cakes/wholemeal crisp bread topped with low-fat/homemade hummus/salsa/healthy dip
- Rice cakes/wholemeal crisp bread with matchbox-size low-fat cheese/ low-fat cheese spread.

## USEFUL WEBSITES:

World Cancer Research Fund:	<a href="https://www.wcrf.org/">https://www.wcrf.org/</a>
Breakthrough Cancer Research:	<a href="https://www.breakthroughcancerresearch.ie/">https://www.breakthroughcancerresearch.ie/</a>
The Irish Cancer Society:	<a href="https://www.cancer.ie/">https://www.cancer.ie/</a>
The American Institute of Cancer Research:	<a href="http://www.aicr.org/">http://www.aicr.org/</a>
Irish Nutrition and Dietetic Institute:	<a href="https://www.indi.ie/">https://www.indi.ie/</a>
The British Dietetic Association:	<a href="https://www.bda.uk.com/">https://www.bda.uk.com/</a>
The National Cancer Institute:	<a href="https://www.cancer.gov/">https://www.cancer.gov/</a>
Cancer Research UK:	<a href="https://www.cancerresearchuk.org/">https://www.cancerresearchuk.org/</a>



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*Chilli con carne* - Gemma Fagan  
*Grilled lemon scented salmon* - Odran Lawlor  
*Roast garlic baby potatoes* - Catherine Shortall  
*Salmon and pasta salad* - Ellen Barrett  
*Seared Haddock with Horseradish aioli* - Croí, Galway  
*Spicy Rice and Lentil One-Pot* - Arún Fenton

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# HEALTHY EATING FOR CANCER SURVIVORS

This book was written for cancer survivors who require a healthy eating diet. It is based on the most recent evidence-based recommendations from the World Cancer Research Fund. The evidence shows that following these recommendations may improve the chances of longer-term survival after a cancer diagnosis. It contains a selection of delicious healthy meals suitable for all the family

