



Food pyramid overleaf

Before you proceed, open the **front cover flap page** as shown below



This food guide is best viewed when the **front cover flap page** is open and on view while the document is being read.







This allows the reader to reference the Food Pyramid while reading the document.

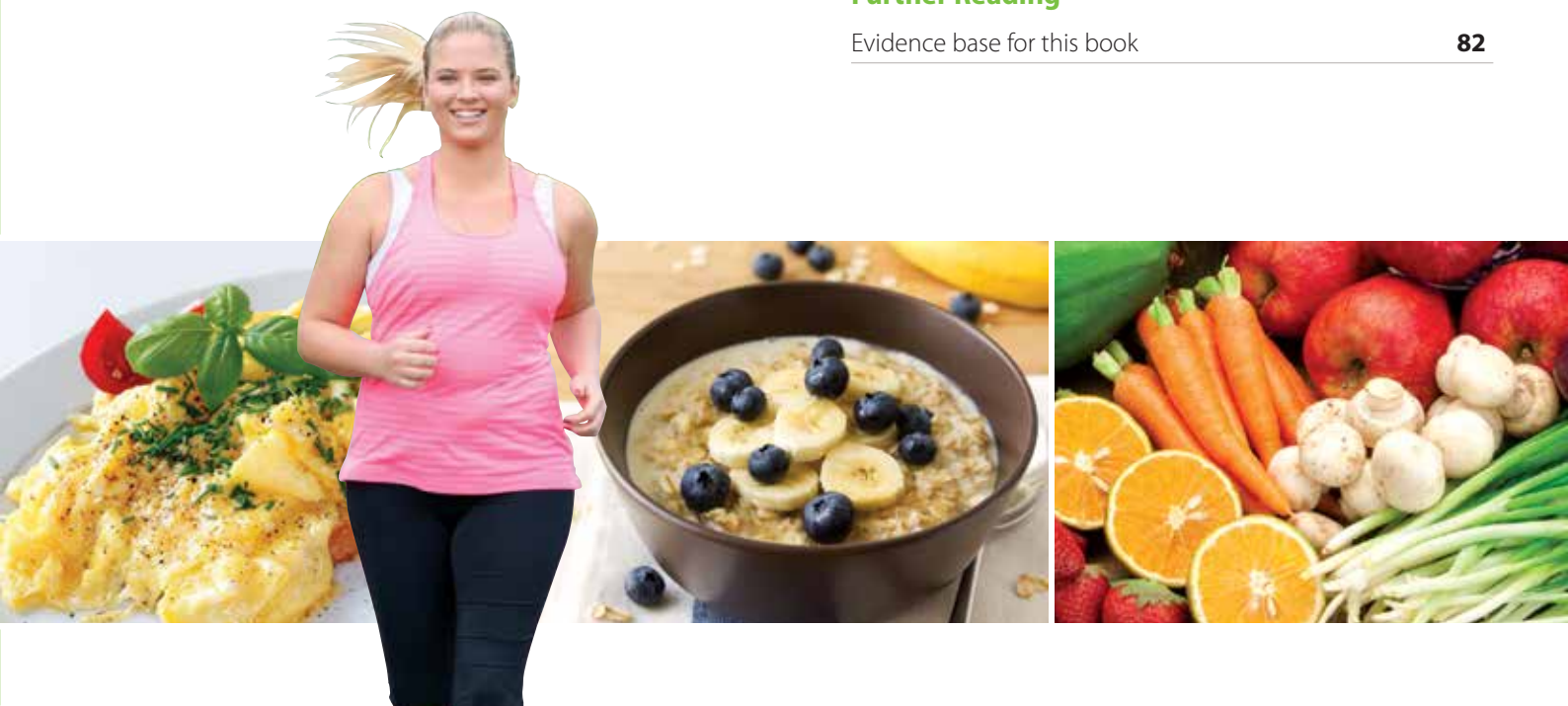


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Understanding the Food Pyramid

Food groups

The six food groups were formed by grouping foods which are rich in the same types of nutrients. This means that every food can be placed into one of these six food groups depending on the nutrients it contains. For example, foods which are rich in calcium are grouped together to form the milk, yogurt and cheese group.

Shape and size

The shape of the Food Pyramid shows which foods need to be eaten most. Food groups on the bottom shelves take up the most space in the pyramid because people need to eat more of these foods for a healthy diet. The top food group is the smallest because it contains foods high in fat, sugar and salt, which must be limited as much as possible for good health. This group is separate from the others because these foods are not part of a healthy diet.

The Food Pyramid has six food groups, but only the bottom five food groups are needed for good health. Healthy eating is about choosing the right amounts of foods from the bottom five food groups every day.



The Food Pyramid at a glance

This guide describes the foods everyone in Ireland needs to eat for a healthy body and for protection against disease. It also explains the types and amounts of foods people need for good health. This guide helps people choose the types of foods and drinks which benefit their health and promote a healthy weight.

This food guide will help people understand:

- **What children need in order to grow and develop to their full potential**
- **What teenagers need in order to cover their pubertal growth spurt and gain lifelong health benefits**
- **What adults need in order to protect their heart health and bone strength, and reduce the risk of cancer**
- **What older adults need in order to keep healthy and well as they age**
- **How the nutrient needs of males and females are different**
- **How the nutrient needs of active and inactive adults are different.**

This food guide will help people of all ages to reach a healthy weight and improve their well-being.



Foods and drinks high in fat, sugar and salt

NOT every day; limit to once or twice a week.

High in calories, fat, sugar and salt.



Fats, spreads and oils

Use sparingly. Choose low-fat spreads. Cook with as little fat or oil as possible – boil, bake, steam and grill instead.

All types are high in calories.



Meat, poultry, fish, eggs, beans and nuts

Choose lean meat and poultry. Eat oily fish once a week. Limit processed meats such as sausages, bacon and ham.

Important for protein and iron.



Milk, yogurt and cheese

Choose low-fat varieties. Enjoy low-fat milk and yogurt more often than cheese.

Rich in calcium for healthy bones.



Wholemeal cereals and breads, potatoes, pasta and rice

Wholemeal cereals are best. The number of servings needed depends on body size, activity level, age and gender.

Provide fibre and the best calories for your body.



Vegetables, salad and fruit

Base your meals on these and enjoy a variety of colours. More is better.

Rich in protective nutrients and low in calories.

Foreword

The Food Safety Authority of Ireland's (FSAI's) vision is to ensure that all consumers in Ireland and consumers of Irish food abroad have access to safe and trustworthy food. Detailed healthy eating advice tailored to meet the needs of different age and gender groups in Ireland, together with the ability to make informed food choices, are key determinants of population health. We ensure that we achieve our vision through a range of activities involving the entire food chain, from primary production to consumption, ensuring at all times a focus on safety and trustworthiness of food and the provision of scientifically robust information on which we base our decisions. Using the expertise of our experienced scientists, food regulators and collaborators, we translate scientific information into scientific recommendations relevant for Ireland. It is important that such scientific recommendations are effectively communicated to health professionals who advise consumers on healthy food choices, as well as to food businesses, such as those in the catering services sector, that are responsible for providing safe and trustworthy food to consumers.

This guide was developed to support Healthy Ireland's Healthy Food for Life – the Healthy Eating Guidelines and Food Pyramid, which was launched in December 2016 by the Department of Health. It is a guide for health professionals, catering services and food businesses. Scientific evidence and technical information on safe and healthy food choices is provided from all perspectives – nutritional, microbiological and toxicological. The advice throughout this guide takes account of the food supply chain in Ireland and how this is regulated. This guide, developed with the support of our colleagues in the Department of Health and the Health Service Executive (HSE), is designed to help health professionals, catering services and food businesses provide safe food and trustworthy information to consumers, so that they can make informed decisions about the foods they choose to eat.



'This guide is designed to help health professionals, catering services and food businesses provide safe food and trustworthy information to consumers.'

Dr Pamela Byrne

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Introduction

This guide provides extended information to support the Healthy Ireland Food Pyramid 2016, which is based on international best practice and tailored to meet the specific needs of Ireland's population. These healthy eating guidelines are designed to protect people at every age and stage (from five years old) against heart disease and cancer, which are the major causes of diet-related ill health in this country. This guide provides the reasons behind recommendations such as why eating different-coloured vegetables is protective and why different fats and oils are best, as well as covering issues such as how to use nutrition labelling to select the best foods, etc.

This food guide includes information on food safety and food legislation relating to nutrition in Ireland. For example, it explains in detail how to safely maintain vitamin D status at Ireland's latitude given the natural food sources, fortified food and food supplements available. Now that nutrition labelling is mandatory, this guide includes advice on how these labels can be used to guide consumers towards healthy choices from the ever-increasing variety of foods on offer (e.g. cereals and yogurts).

In addition, this guide describes how exposure to contaminants such as acrylamide can be minimised and how reformulation by the food industry can positively impact Ireland's food environment. Finally, it highlights the importance of accurate allergen labelling in keeping consumers safe, in addition to the many other nutritional issues that health professionals, catering services and food businesses in Ireland encounter.

'These healthy eating guidelines are designed to protect people at every age and stage (from five years old) against heart disease and cancer, which are the major causes of diet-related ill health in this country.'



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Top tips for healthy eating

Variety:

enjoy a wide variety of food, choosing the right amounts from each food group.

Physical activity:

find enjoyable ways to be physically active every day. Balancing food intake with active living will protect against disease and prevent weight gain.

Serving sizes:

be aware of 'supersize' portions which can distort the perception of what's needed. Learn about healthy portion sizes in each of the food groups.

Vegetables, salad and fruit:

eat plenty of different coloured vegetables, salad and fruit. Base all meals on this group and consume at least five servings a day.

Healthy weight:

wholemeal breads, cereals, potatoes, pasta and boiled rice are important for providing calories to maintain a healthy weight. Follow recommended portion sizes.

Low-fat dairy:

low-fat milk, yogurt and cheese are best. Choose low-fat milk and yogurt more often than cheese.

Meat, poultry, fish, eggs, beans and nuts:

choose lean meat and poultry and include fish (oily is best). Remember that eggs, peas, beans and lentils are good alternatives.



Fat spreads:

use polyunsaturated and monounsaturated spreads and oils sparingly. Reduced-fat spreads are best.

Cooking methods:

bake, steam, boil or stew food instead of frying or deep frying. Go for a blonde or light gold colour when cooking, not brown.

Limit other foods:

such as biscuits, snacks, savoury snacks and confectionery. These foods are not needed for healthy eating and are high in calories, sugar and salt.

Limit salt intake:

avoid adding salt during cooking or at the table and limit salty foods.

Drink plenty of fluids:

water is best.

Vitamin D:

eat oily fish once a week to help meet the recommended intake of vitamin D. People choosing a supplement of vitamin D should take a low-dose supplement which provides a maximum of 5-10 µg of vitamin D per day.

Breast is best:

everyone should support and encourage breastfeeding because it gives babies the very best start in life and helps protect women's health.

Food safety:

always prepare and store food safely.



Vegetables, salad and fruit group



Choose a variety of colours for the best mix of protective nutrients

5 to 7 servings a day



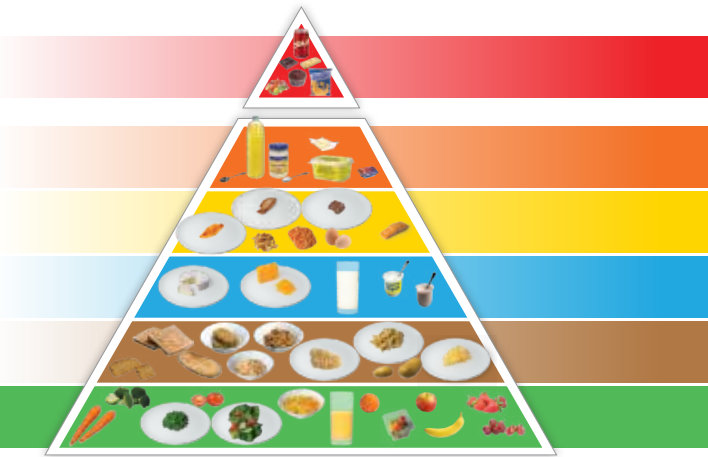
Vegetables, salad and fruit provide fibre and a range of vitamins and minerals for good health. These foods are generally low in calories and fat (see exceptions on page 7). For healthy eating, everyone should base all their meals on plenty of foods from this food group.

To find out how many servings people of different ages and activity levels need, go to pages 34–49.

To encourage people to eat more vegetables, salad and fruit, the amounts which make up one serving are shown opposite. Remember – the more of this group, the better.

Remember

For a healthy weight, make vegetables, salads and fruit half of every meal.



Did you know?

These foods are rich in protective nutrients that protect against heart disease and cancer. They are also low in calories and help control body weight.

This is the one food group where more is generally better.

Each colour of fruit and vegetable has its own benefits which protect health. See page 9 to find out more.

To prevent vitamins from leaching into cooking water, steam or microwave if possible. Cooked vegetables should be firm.

Top tip

Juicing keeps all the sugar but always reduces fibre. Whole fruits and vegetables are always best because the fibre makes them filling and reduces overeating in general.





Vegetables, salads and fruits that are low in calories and full of vitamins, minerals and fibre – more is better.

Guide to serving sizes: each item counts as one serving and MORE is always better

VEGETABLES	SALAD	FRUIT	
½ cup carrots, parsnip or turnip	One bowl of lettuce, tomato or cucumber	One medium apple, orange or pear	10 grapes or cherries
½ cup broccoli or cauliflower	One cup scallions or onions	One medium peach or nectarine	Six strawberries
½ cup celery or leeks	One cup beetroot or radishes	One medium banana	⅔ cup stewed fruit
½ cup peppers or mushrooms	One cup peppers	One large slice of melon	½ mango
½ cup asparagus or mangetout	One cup bean sprouts or watercress	One large slice of pineapple	½ grapefruit
½ cup cooked cabbage or kale		Two satsumas or mandarins	½ cup blueberries
½ cup Brussels sprouts		Two plums or apricots	½ cup fresh prunes
½ cup cooked peas		Two passion fruits	
½ cup courgette or aubergine		Two kiwis	
One bowl homemade vegetable soup		16 raspberries or blackberries	

Exceptions: vegetables, salads and fruits that only count as one serving of the '5–7 a day'.

These foods provide good nutrition, but no matter how many servings are eaten, only one counts towards the recommended five to seven servings a day. See why below.

¾ cup (150 mL) unsweetened fruit juice <i>(Low in fibre)</i>	⅔ cup of fruit or vegetable smoothie <i>(Low in fibre and may contain added sugar)</i>	⅔ cup stewed fruit with added sugar <i>(Contains added sugar)</i>	⅔ cup tinned fruit <i>(Contains added sugar)</i>	½ avocado <i>(Contains fat)</i>	½ cup dried fruit (raisins, sultanas, apricots, etc.) <i>(High in concentrated sugar)</i>	Five olives <i>(Contains fat and can be high in salt)</i>
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Portion size reference guide

Go to page 32 to see the full Portion size reference guide.



200 mL disposable cup

Use a disposable plastic cup to guide portion sizes of vegetables, salad and fruit.

Vegetables, salad and fruit group



Enjoy a rainbow of colours

Vegetables, salad and fruit provide fibre and a range of vitamins and minerals for good health. These foods are generally low in calories and fat (see exceptions on page 7). For healthy eating, everyone should base all their meals on plenty of foods from this food group.

To find out how many servings people of different ages and activity levels need, go to pages 34–49.



Super foods

Vegetables, salads and fruit are super foods for healthy eating because in general they are:

- Filling yet low in calories
- High in fibre
- Low in fat
- Rich in vitamins, minerals and phytochemicals.*

* Phytochemicals are natural chemicals which protect health and are found in vegetables, salads and fruits, e.g. antioxidants and flavonoids.

Did you know?

Different colours of vegetables, salads and fruits provide different protective nutrients.

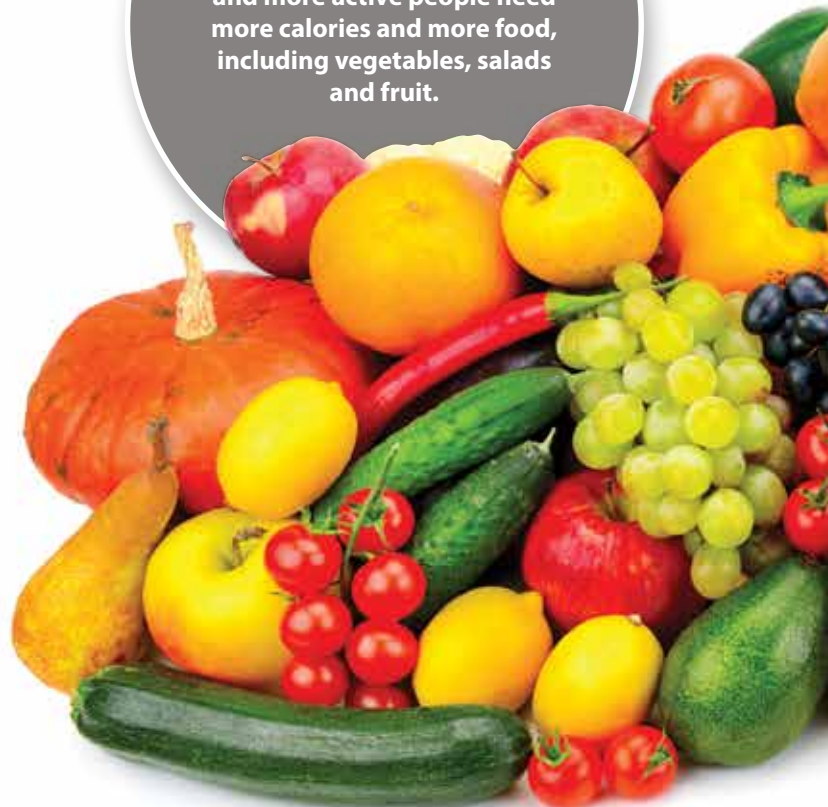
These nutrients have antioxidant and anti-inflammatory effects which protect cells in the body from damage and disease. See page 9 for more details.

Citrus fruits (such as oranges, lemons, satsumas and grapefruits) are an excellent source of vitamin C.

Vegetables, salads and fruits are filling, high in fibre, low in calories and contain no fat.

Remember

Some people need more than five to seven servings a day. Bigger and more active people need more calories and more food, including vegetables, salads and fruit.





Red foods

Red peppers, Tomatoes, Radishes, Strawberries, Red grapes, Watermelons, Red apples, Cranberries, Cherries, Pink grapefruits, Pomegranates, Rhubarb

Good source of

Vitamin A, Vitamin C, Riboflavin (B2), Pyridoxine (B6), Potassium



Red-purple foods

Red cabbage, Red onions

Good source of

Vitamin C, Riboflavin (B2), Pyridoxine (B6), Potassium



Purple and blue foods

Aubergines, Purple asparagus, Beetroot, Blueberries, Plums, Blackcurrants, Purple grapes, Purple-sprouting broccoli

Good source of

Vitamin C, Vitamin K



Orange and yellow foods

Yellow peppers, Carrots, Pumpkin, Butternut squash, Sweet potatoes, Peaches, Nectarines, Melons, Apricots, Mangos, Pineapples Oranges, Satsumas

Good source of

Vitamin A, Vitamin C, Vitamin E, Potassium



Green foods

Broccoli, Cabbage, Spinach, Peas, Green beans, Lettuce, Cucumbers, Asparagus, Courgettes Green peppers, Green apples, Kiwis, Green grapes, Limes

Good source of

Vitamin A, Vitamin C, Riboflavin (B2), Pyridoxine (B6), Folate, Potassium



Green-white foods

Celery

Good source of

Vitamin C, Vitamin K, Riboflavin (B2), Pyridoxine (B6), Potassium



White and brown foods

Cauliflower, Mushrooms, Garlic, Onions, Parsnips, Turnips, Bananas, White peaches, Dates, Brown pears

Good source of

Vitamin A, Vitamin C, Vitamin E, Potassium



Wholemeal cereal and breads, potatoes, pasta and rice group

Choose wholemeal for fibre and the healthiest calories

3 to 5*
servings a day

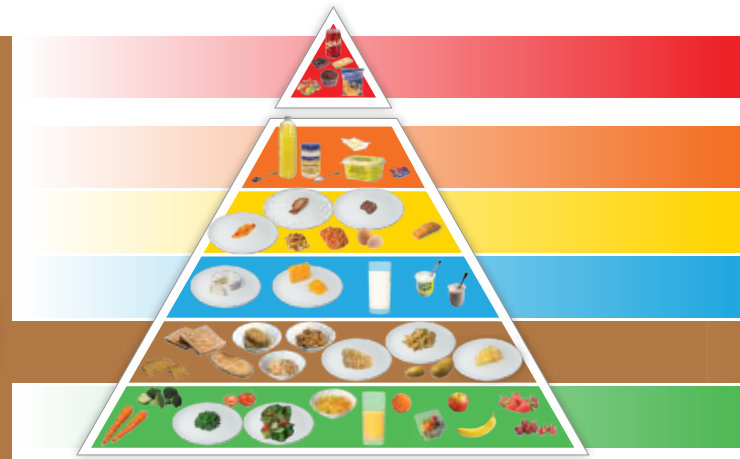
*Up to 7 for teenage boys and men age 19–50



Which foods and how much? Each item counts as one serving:

- Two thin slices wholemeal soda bread
- 1½ slices wholemeal bread
- One pitta pocket
- ⅓ cup dry porridge oats
- ½ cup unsweetened muesli
- One cup flaked breakfast cereal
- One cup cooked rice, pasta or noodles
- Two medium or four small potatoes
- 1 cup yam, plantain or couscous

Over these four pages, find out which of these foods are the best choices for particular health benefits.



Did you know?

High-fibre foods add bulk which is needed to move food through the gut. This protects against constipation and bowel diseases (such as diverticular disease and bowel cancer).

It's best to have fibre-rich carbohydrates at every meal.

The portions in this food guide are worked out for people of a healthy weight.

Overweight people will lose weight steadily if they follow the advice in this guide. This is because their larger body size uses more calories doing the same activities as someone of a healthy weight.

Different people need different amounts of these foods depending on their:

BODY SIZE



Bigger people need more servings than smaller people.

ACTIVITY LEVEL



Active people need more servings from this food group than inactive people.

AGE



Younger people need more servings for growth and development.

GENDER



Males need more servings than females, mainly due to their larger body size.



It's all about fibre...

- Choose fibre-rich carbohydrates such as wholemeal cereals and breads, jacket potatoes, and wholewheat pasta and rice.
- 100% wholemeal or wholegrain foods contain all three parts of the cereal grain: the starchy core, the nutrient-rich germ and the high-fibre bran.
- 100% wholemeal means the same as 100% wholegrain.

...and it's all about weight control.

- Be careful about portion size
 - Watch out for portion sizes for different foods
 - Some foods are more filling than others
- Be aware of calorie differences
 - Foods are shown below in four different calorie bands
 - Servings provide between 100 and 220 calories in the four bands
 - Foods in the lowest calorie band are more filling
 - Be careful of portion size when choosing foods in the highest calorie band



Guide to serving sizes: be aware of different calorie food bands

CALORIE BAND	CEREALS	BREADS	POTATOES, PASTA AND RICE				
Lowest 100–135 kcal	1/3 cup raw porridge oats	1 1/2 slices wholemeal soda bread	One slice batch loaf	One medium bread roll	Three scoops plain mashed potato	One medium baked potato	One cup cooked pasta
Low to mid 135–160 kcal	Two wholewheat breakfast cereal biscuits	Two slices wholemeal bread	One large oval pitta breads	Six wholemeal crackers	Two medium potatoes	One cup cooked basmati rice	One cup sweet potatoes
Mid to high 160–190 kcal	1/2 cup unsweetened muesli	One tortilla wrap	1/2 lunch baguette roll	1/2 panini bread	One cup cooked yams or plantains	One cup cooked white rice	One cup cooked brown spaghetti
Highest 190–220 kcal	One cup cereal flakes	Two 'thickcut' slices pan bread	One bagel	Two small round pitta breads	One cup cooked brown rice	One cup cooked couscous	1 1/2 cups wholewheat noodles

Portion size reference guide

Go to page 32 to see the full Portion size reference guide.



200 mL disposable cup

Use a disposable plastic cup to guide portion sizes of cereals, cooked rice and pasta.

Wholemeal cereal and breads, potatoes, pasta and rice group



How to find healthier breakfast cereals

Tips on choosing the best breakfast cereal

1. Most cereals provide nutrition information per portion. Use this to choose the best cereal.
2. One portion of the best cereals:
 - Provides fibre** – close to 3 g or more; and
 - Is low in sugar** – not much more than 6 g (even with dried fruit added); and
 - Is low in fat** – not more than 3 g (unless lots of nuts and seeds are added); and
 - Is low in saturated fat** – less than 1.5 g (or less than 2 g if lots of nuts and seeds are added).

These are the numbers to look for on the label.
3. If nutrition information is only given per 100 g, look for the recommended portion size and work out how much fibre, sugar, fat and saturated fat this provides. Use the cut-offs above to make the best choice.

Ready-to-eat cereals vs. Porridge

Fibre-rich fortified cereals

Fibre-rich fortified cereals are the best cereals for picky eaters or people with poor appetites. They provide extra vitamins and minerals.

Fibre-rich fortified cereals can also be a useful boost to nutrient intakes during childhood and adolescence.

Porridge

Plain porridge is not fortified, is low in calories, fat and salt, has no sugar and is very filling.

Porridge has a special type of fibre called beta-glucan. Beta-glucans can be seen as the gel that forms on cold porridge.

Beta-glucans lower cholesterol, prevent blood sugar spikes and slow down the movement of food to keep a person feeling full for longer.

Beware...

...of instant porridges which can be very high in added sugar and salt. Always check the label (see across).



Top tip

Read the nutrition label for the most reliable information on what a bowl provides.

Always...
...stick to the portion size recommended and enjoy your cereal.

Be aware...

...of cereals containing added fat and oil from nuts and seeds.



Nutrition information is always given per 100 g

Look for the recommended portion size and work out what this provides.

Nutrition label for cereal

TYPICAL VALUES	PER 100 G	PER 40 G SERVING
Energy (kJ)	1513	605
Energy (kcal)	359	144
Protein (g)	12	4.8
Carbohydrates (g)	63	25
of which sugars (g)	14	5.6
Fat (g)	3.2	1.3
of which saturates (g)	0.5	0.2
Fibre (g)	15	6

Sometimes nutrition information is given per portion

Use this to choose the best cereal.

Added vitamins and minerals declared here

Amount per 100 g listed here

Amount per serving listed here



Best provides fibre
(close to 3 g or more)



Best is low in saturated fat
(not more than 1.5 g – if lots of nuts and seeds are added, not more than 2 g)



Best is low in fat
(not more than 3 g – unless lots of nuts and seeds are added)



Best is low in sugar
(not much more than 6 g – even with dried fruit added)

Milk, yogurt and cheese group



Great for calcium for healthy bones

3 servings a day
5 for children age 9–12 and teenagers age 13–18



Milk, yogurt and cheese provide calcium and protein. Calcium (along with vitamin D) is needed for good bone health throughout life. Protein is needed to support growth and maintain a healthy body.

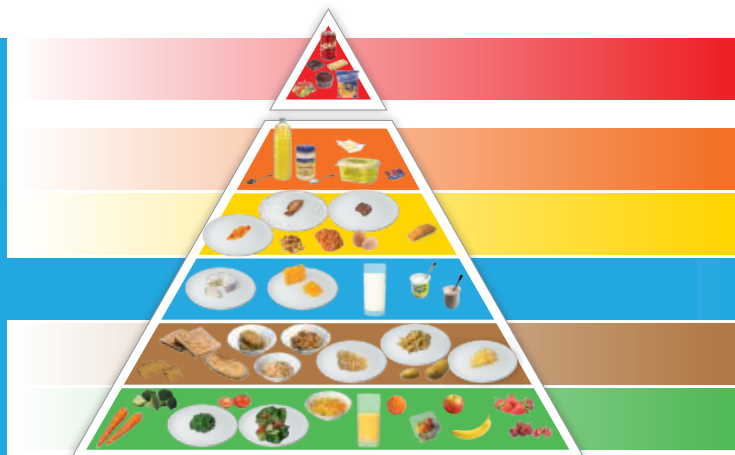
Children, teenagers and young adults (up to late 20s) need good calcium intakes to build strong and healthy bones. This protects against conditions such as osteoporosis (fragile bones). All adults over 30, including middle-aged and older adults, need good calcium intakes to help protect against the bone loss associated with ageing.

Remember

Calcium and vitamin D are both needed for healthy bones.

Dairy foods are rich in calcium but do not naturally contain much vitamin D (some products have vitamin D added).

For more information on vitamin D, go to page 58.



Did you know?

Low-fat milk is one of the most complete foods. It provides the body with most of the nutrients it needs with very little saturated fat.



Top tip

Choose low-fat varieties where possible. Low-fat dairy foods provide the same amount of calcium and other nutrients but fewer calories.

Low-fat milk and yogurt are the best food choices from this group.





Top tip
 Different age groups need different servings from this group. To find out how many servings are needed, go to pages 34–49.

Guide to serving sizes: each item counts as ONE serving and low fat is best

MILK	YOGURT	CHEESE
One cup low-fat milk (240 mg calcium)	¾ cup natural or fruit yogurt (240 mg calcium)	One cup cottage cheese (240 mg calcium)
One cup full-fat milk (260 mg calcium)	One cup natural yogurt drink (240 mg calcium)	Piece of hard cheese (e.g. reduced-fat Cheddar) the width and depth of 2 thumbs (100–240 mg calcium depending on thumb size)
One cup skimmed milk (240 mg calcium)	One cup fruit yogurt drink (240 mg calcium)	Piece of soft cheese (e.g. reduced-fat Brie) the width and depth of 2 thumbs (80–220 mg calcium depending on thumb size)
One cup low-fat fortified milk (320 mg calcium)	One cup flavoured yogurt drink (240 mg calcium)	
One cup flavoured milk (240 mg calcium)	¾ cup natural pouring yogurt (200 mg calcium)	
One cup fortified soya milk (240 mg calcium)	¾ cup flavoured pouring yogurt (200 mg calcium)	
	¾ cup diet yogurt (210 mg calcium)	

Top tip
 Choose low-fat milk and yogurt more often and enjoy cheese occasionally.
 Cheese is a rich source of calcium and protein. Be aware of portion size because many cheeses are also high in fat, saturated fat and salt.



Portion size reference guide

Go to page 32 to see the full Portion size reference guide.



200 mL disposable cup
 Use a disposable plastic cup to guide portion sizes of milk, yogurt and cottage cheese.

Thumbs
 Use the width and depth of your thumbs to guide the portion size of cheese.



Milk, yogurt and cheese group



Tips on choosing the best yogurt

1. Look at the nutrition label.
2. Remember that nutrition information is always given per 100 g.
3. Be aware that a usual serving of yogurt is about 125 g and that the nutrition information is not always given per serving.
4. **Tip:** Because the recommended serving is close to 100 g, use the nutrition information per 100 g to make the best choice.

Choosing the best natural yogurt

Choose a natural yogurt where 100 g:

- Is low in fat – up to 3 g
- Is low in saturated fat – up to 1.5 g
- Is low in sugar – up to 5 g

Sample label of

Low-Fat Natural Yogurt

TYPICAL VALUES	PER 100 G
Energy (kJ)	178
Energy (kcal)	42
Protein (g)	5.6
Fat (g)	0.1
of which saturates (g)	0.1
Carbohydrates (g)	3.1
of which sugars (g)	3.1

Use these cut-offs to choose healthy options

Low in fat

Up to 3 g per 100 g

Low in saturated fat

Up to 1.5 g per 100 g

Low in sugar

Up to 5 g per 100 g natural yogurt

Up to 9 g per 100 g flavoured yogurt

Choosing the best flavoured yogurt

Choose a flavoured yogurt where 100 g:

- Is low in fat – up to 3 g
- Is low in saturated fat – up to 1.5 g
- Is low in sugars – up to 9 g (allows for 5 g natural sugar and one teaspoon (4 g) of added sugars)*

Sample label of

Low-Fat Flavoured Yogurt

TYPICAL VALUES	PER 100 G
Energy (kJ)	241
Energy (kcal)	56
Protein (g)	4.6
Fat (g)	0.2
of which saturates (g)	0.1
Carbohydrates (g)	8.9
of which sugars (g)	8.6

* **Added sugars:** The World Health Organization recommends keeping added sugars to less than 5% of total calories – this is about 25 g in an average adult diet (2,000 calories). However, European Union (EU) labels only display 'sugars', which are a mix of 'added' and 'natural' sugars.



The type of protein found in dairy foods has been shown to help control blood pressure and protect against heart disease.

Dairy foods also provide riboflavin (vitamin B2) and calcium which help blood pressure control. Choose low-fat for the heart-healthy benefits without the saturated fat.



Beware...

...of desserts that look like yogurts. Some yogurts have added cream and sugar. These yogurts are treats for dessert rather than a portion of dairy.

Did you know?

The sugars in natural yogurt are natural milk sugars (e.g. lactose).

These sugars are not added and can naturally be as concentrated as 3–7 g per 100 g.

Sugars in flavoured yogurts are a mixture of natural milk sugars (e.g. lactose) and added sugar (note: in some products, added sugars are replaced by sweeteners).

Choose flavoured yogurts that contain up to 9 g sugar per 100 g. This allows for 5 g natural milk sugar and one teaspoon (4 g) of added sugar.

Remember

Milk and yogurt have less fat than cheese. Choose these more often.

Have low-fat cheese a few times a week instead of every day.

Did you know?

Choosing low-fat milk and low-fat yogurt gives all the heart-healthy nutrients without the saturated fat.

Top tip

Use low-fat milk when making milk-based desserts and savoury sauces.

This counts towards a person's dairy needs.

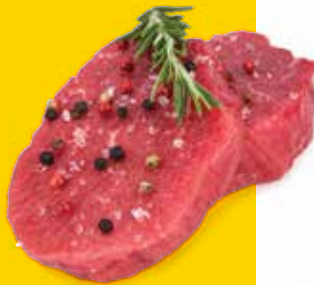


Meat, poultry, fish, eggs, beans and nuts group



2
servings a day

- All rich in protein
- Key nutrients are provided by different foods in this group
- Choose a variety of protective nutrients



All the foods in this group are rich in high-quality protein. Protein is needed to maintain a healthy body and support growth. All foods in this group provide iron, but some are better than others.

Everyone needs some of these foods every day – but not a lot.

To get the real value of this food group, choose different foods on different days.



Value of lean red meat

Unprocessed lean red meats (beef, mutton, lamb and pork) are the richest sources of iron (haem iron). This type of iron is most easily absorbed by the body.

Value of poultry

Poultry (chicken and turkey) is mild flavoured, easy to digest and rich in protein.

Most of the fat in poultry is in the skin. If this is removed, poultry is low in fat.

Value of fish

Oily fish is a rich source of vitamin D and omega-3 fatty acids called EPA and DHA.

White fish and shellfish are low in fat and calories.

Value of vegetarian eating

Peas, beans and lentils provide good-quality protein and are a low-fat, high-fibre alternative to meat.

Nuts are a great high-fibre, high-protein snack.

Vegetarian eating one or two days a week is good for everyone.

Eggs

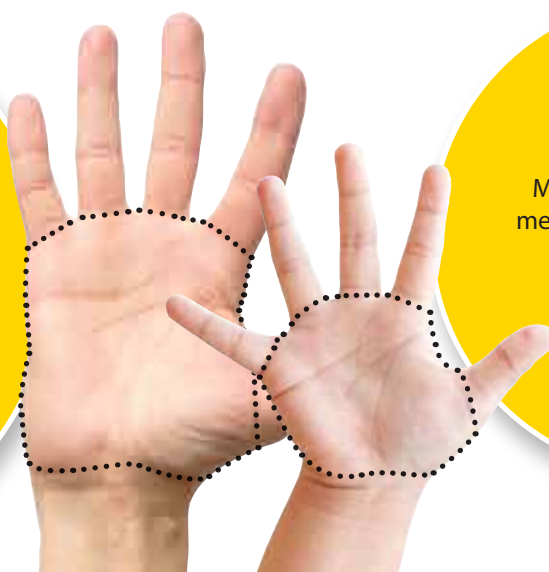
Eggs provide protein, iron and some vitamin D.



How much do people need in a day?

A portion of meat, poultry or fish the same size as the width and depth of a person's palm (without fingers and thumb) is more than enough for a day.

It depends on the size of the hand – big people need more and smaller people need less.



The daily amount people need can be:

Mostly eaten at the main meal with a smaller amount at the light meal

OR

spread evenly between two meals.

Guide to serving sizes: each item counts as ONE serving

MEAT	POULTRY	FISH	EGGS	BEANS AND NUTS	SOYA AND TOFU
50–75 g (half the size of the palm of your hand) cooked lean beef, lamb, pork or mince	50–75 g (half the size of the palm of your hand) cooked poultry	100 g cooked fish	Two eggs	¾ cup cooked beans, peas or lentils 40 g unsalted nuts or seeds	100 g cooked soya or tofu

A word of warning on processed meat

- These foods should be limited because they are high in salt, preservatives and fat.
- Processed meats are cured meats such as ham, sausages, luncheon meats and salami.



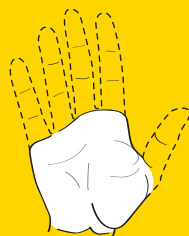
Portion size reference guide

Go to page 32 to see the full Portion size reference guide.



200 mL disposable cup

Use a disposable plastic cup to guide portion sizes of peas, beans and lentils.



Palm of the hand

The width and depth of your palm (without fingers and thumb) shows how much meat, poultry or fish you need in a day. Most of this can be used for your main meal, with the remainder for your light meal.

5ml teaspoon

This can guide your portion size for peanut butter.



Meat, poultry, fish, eggs, beans and nuts group

Lean red meat

(two to three days a week)

- Red meats include beef, mutton, lamb
- Excellent source of protein
- Rich source of easily absorbed (haem)



All about iron

Children need iron (7 mg/day for 5–6-year-olds and 11 mg/day for 7–11-year-olds) to support growth.

Teenage girls need iron (13 mg/day) to support growth and menstruation.

Teenage boys need iron (11 mg/day) to support growth.

Premenopausal adult women need iron (16 mg/day) to support menstruation, pregnancy and lactation.

Adult men (19–50 years) need iron (11 mg/day) to support a healthy body.

After menopause, the need for iron falls. **Older women** only need iron (11 mg/day) to support a healthy body.

Older men (51+ years) need iron (11 mg/day) to support a healthy body.

A word of warning on meats cooked at high temperatures



High cooking temperatures (e.g. during grilling, frying or barbequing) create compounds (heterocyclic amines [HCAs] and polycyclic aromatic hydrocarbons [PAHs]) on the surface of meat which have been linked to cancer, especially colon cancer.

How to reduce risk

- Stew and boil meat more often than grilling, frying or barbequing.
- When grilling or frying, flip meat over frequently to reduce the formation of harmful compounds.
- When barbequing, avoid direct contact of food with flame by using a tray or some aluminium foil between the food and the heat source. This will prevent fats from meat dripping into the flame and producing smoke that contains these harmful substances.
- Remove charred parts of meat, where harmful compounds are concentrated.
- Avoid making gravy from meat drippings. Meat drippings are high in HCAs and PAHs, and are also high in saturated fat.

Poultry

(two to three days a week)

- The most common types of poultry eaten are chicken and turkey.
- Most of the fat in these is in the skin – remove this.
- Poultry contains small amounts of easily absorbed (haem) iron – mostly in the brown meat.
- Chicken, turkey and game are low-fat sources of iron.
- Duck and goose also provide some iron, but are much higher in fat.
- The meat of chickens reared on a diet enriched with omega-3 fatty acids provides EPA and DHA, which can protect against heart disease and stroke.
- Limit processed poultry such as chicken nuggets and chicken goujons, which are high in fat and salt.

Did you know?

Skinless chicken and turkey are very lean – especially the white meat. These are good everyday choices.

Chicken wings are very high in fat and need to be limited.

How much red meat and poultry do people need?

A portion of meat, poultry or fish the same size as the width and depth of a person's palm (without fingers and thumb) is more than enough for a day.



The daily amount people need can be:

Mostly eaten at the main meal with a smaller amount at the light meal

OR

spread evenly between two meals.

Top tips

Meat and poultry dishes such as stews and casseroles can be bulked up by adding vegetables and pulses to stretch meat further.

This also makes the dish lower in fat and calories and higher in fibre, minerals and vitamins.

To reduce calories, cook with as little fat and oil as possible.

Reduce fat by removing the skin from poultry.

Stew, steam, bake and boil as often as possible.

Avoid frying and avoid charred, overcooked poultry.



Meat, poultry, fish, eggs, beans and nuts group

Fish

(one to two days a week)

- All fish is rich in protein.
- Oily fish is the best food source of long chain omega-3 fatty acids (EPA and DHA) and vitamin D, but tends to be higher in contaminants, so enjoy it no more than once a week.

Top tip

Frozen fish with no coatings or sauces added provide the same nutrients as fresh fish.



Oily fish – enjoy up to once a week (e.g. salmon, mackerel, herring, trout) contain:

- Omega-3 fatty acids (EPA and DHA), which can protect against heart disease and stroke
- DHA, which is very important during pregnancy for eye and brain development in the foetus
- Vitamin D, which protects bone health
- Some iodine (from 3–19 µg for a child's serving and from 8–57 µg for an adult's serving). Iodine is important for brain development in the foetus during pregnancy.



White fish (e.g. cod, haddock, plaice, whiting) is:

- Very low in fat and low in calories
- An excellent source of iodine, especially cod and haddock (from 16–160 µg for a child's serving and up to 300 µg for an adult's serving). Iodine is important for brain development in the foetus during pregnancy.



Shellfish (e.g. lobster, white meat of crab, prawns, crayfish) are:

- Low in fat
- A good source of iodine (from 10–70 µg for a child's serving and 40–210 µg for an adult's serving).

Note: As long as lobster, crab and prawns are thoroughly cooked, they do not pose any risk for pregnant women.



Facts about fish

- Fish is a unique natural source of nutrients not found in other foods (e.g. iodine and, in oily fish, EPA, DHA and vitamin D).
- Regular monitoring of contaminants in food show that it is safe to eat fish up to two times a week
 - Enjoy oily fish up to once a week.
 - If only choosing white fish, this can be eaten twice a week.

Exceptions

- Young children (under 10 years of age) should avoid eating large predatory fish (swordfish, marlin and shark) because of their high mercury content.
- Fish is an excellent food during pregnancy, with some exceptions – see below.



Did you know?

Canned tuna does not count as a portion of oily fish. The omega-3 fatty acids in tuna are lost during the canning process.

How much fish do people need?

An amount of fish the same size as the width and depth of a person's palm (without fingers and thumb) is more than enough for a day.



Top tip

Visit www.fsai.ie for information on suitable types and amounts of fish for children, pregnant women and women planning to become pregnant.

Benefits of some fish during pregnancy

- **Oily fish (e.g. salmon, mackerel, herring, trout)** up to once a week provides women with omega-3 fatty acids (EPA and DHA) which are important for baby's brain and eye development.
- **Oily fish** is a good source of vitamin D to protect the bones of mother and infant.
- **White fish** – especially cod and haddock – provide iodine for brain development.

The few fish that need to be avoided in pregnancy

- **Avoid shark, marlin and swordfish.** These fish contain mercury which affects the nervous system and developing brain of the foetus.
- **Avoid all oysters and mussels** as these may contain biotoxins which are not destroyed on cooking.
- **Limit fresh tuna** intake to once a week and **tinned tuna** to not more than two 8 oz cans per week.



Meat, poultry, fish, eggs, beans and nuts group

Vegetarian alternatives (eggs, beans and nuts)

(one to two days a week)

- Pulses include peas, beans and lentils
- All of these foods are a valuable alternative to meat and poultry because they are a good source of protein and contain a variety of other nutrients (see below).

Pulses (peas, beans and lentils) are:

- A low-cost source of good-quality protein
- Low in fat and calories
- A good source of soluble fibre which helps to reduce cholesterol and protect gut health
- A filling addition to a meal, because fibre in pulses moves food slowly through the gut, keeping a person feeling fuller for longer.

Bean Facts

Be aware...

Dried soya beans and kidney beans contain natural toxins which can upset the stomach. These toxins are destroyed by cooking.



Preparing dried beans

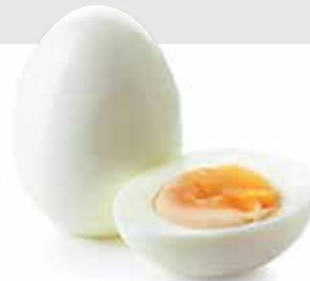
Before cooking, always soak the dried beans (add two to three cups of water to every cup of beans for soaking). Leave to soak overnight (eight hours) in the fridge and strain off the soaking liquid.

Rinse with fresh water and cook as normal.



Did you know?

Eating up to seven egg yolks a week and any amount of egg whites will not raise cholesterol levels in healthy adults.



Eggs

- Good source of high-quality protein
- Good source of non-haem iron
- Egg whites contain protein and have no fat.
- Egg yolks contain protein, fat, iron, vitamin D, vitamin A and some cholesterol.

Canned for convenience

Canned peas and beans (including soya beans and kidney beans) have already been cooked, so these can be safely used straight away and are very convenient.



Nuts (e.g. walnuts, almonds, hazelnuts and pecans) are:

- A good source of heart-healthy monounsaturated and polyunsaturated fats
- A good source of fibre
- High in calories – be aware of portion size.

Note: Due to choking risk, children younger than five years should not be given nuts. Children older than five years must be supervised when eating nuts and should never run around while eating nuts.



Getting more iron from eggs and pulses

- The non-haem iron in eggs and pulses is harder to absorb.
- To absorb more iron, eat these foods with vitamin C-rich foods.
 - Vitamin C-rich foods include green leafy salads, vegetables, tomatoes and citrus fruits (oranges, lemons and limes).



Vegetarian diets

Lacto-ovo-vegetarians eat dairy products and eggs, but not meat, poultry or fish.

Lacto-vegetarians eat dairy products but not meat, poultry, fish or eggs.

Ovo-vegetarians eat eggs but not meat, poultry, fish or dairy products.

Pesco-vegetarians consume fish, eggs and dairy, but not meat and poultry. This diet is sometimes called a 'semi-vegetarian' diet.

Vegan diets

Vegan diets do not contain any food products of animal origin. Vegans do not eat any meat, poultry, fish, dairy products or eggs.

This diet requires careful planning to ensure that it meets nutrient needs. Particular attention should be given to ensure that calcium, iron and vitamin B12 needs are met.



Fats, spreads and oils group

Choose low-fat polyunsaturated or monounsaturated types where possible

In very small amounts



Some fat is needed in the diet, but it is important to:

1. Limit the overall amount of all fats, spreads and oils eaten, because all are very high in calories and
2. Choose the right types, because some fats, spreads and oils damage the cardiovascular system whereas others protect it.



Remember

With fats and oils, choose polyunsaturated and monounsaturated, and always use sparingly.



Fats, spreads and oils rich in saturated fat...

raise blood cholesterol and need to be limited as much as possible.

Sources include all fats of animal origin (e.g. lard, suet, chicken skin, cream and butter) and tropical oils such as coconut oil and palm oil.

Fats, spreads and oils rich in monounsaturated fat...

have a neutral effect on blood cholesterol. Choose limited amounts of these fats.

Sources include rapeseed oil, olive oil, sesame seed oil, almond oil and spreads rich in these fats.

Fats, spreads and oils rich in polyunsaturated fat...

lower blood cholesterol and are best for heart health. Choose limited amounts of these fats.

Sources include corn oil, sunflower oil, safflower seed oil and linseed oil.

Beware of trans fats...

because they increase harmful blood cholesterol (LDL) and reduce protective blood cholesterol (HDL). Trans fats increase heart disease risk.

Trans fats are mainly found in processed foods such as hard margarines, biscuits, pies and pastries.

Some trans fats occur naturally in the fat of meat and dairy products from ruminant animals (e.g. cattle, goats, sheep). These trans fats can be greatly reduced by choosing lean meats and low-fat dairy.



Guide to serving sizes

One serving size is:

- One portion pack of reduced-fat or light spread for two slices of bread
- One teaspoon of oil per person when cooking

Polyunsaturated and monounsaturated fats and oils

Choose these where possible. Reduced-fat varieties are best.

Examples of polyunsaturated: corn oil, sunflower oil, safflower oil.

Examples of monounsaturated: olive oil, rapeseed oil, peanut oil.

Saturated fats and oils

Use as little as possible and as rarely as possible.

Examples of fats: butter, lard, suet.

Examples of oils: coconut oil, palm oil.

Did you know?

People in Ireland tend to have high fat intakes. People need to limit their intake because all fats and oils are extremely high in calories.

.....

Reduced-fat spreads have water added during processing, so the fat and calories per portion are reduced.

All types of fats and oils are very high in calories – choose a reduced-fat spread where possible.

A teaspoon of oil
45 calories

A teaspoon of butter
37 calories

A teaspoon of polyunsaturated spread
37 calories

A teaspoon of **low-fat** (60%) polyunsaturated spread
33 calories

A teaspoon of **low-fat** (40%) polyunsaturated spread
21 calories

Portion size reference guide

Go to page 32 to see the full Portion size reference guide.



Portion pack

Portions of butter or spread found in cafés can guide the amount to use. For example, one pat of fat spread is more than enough for one slice of bread – try and make it do for two. Reduced-fat polyunsaturated and monounsaturated spreads are best.

Fats, spreads and oils group

Saturated fats and oils

- These fats and oils are solid at room temperature.
- Saturated fat raises blood cholesterol and increases heart disease risk.
- Everyone needs to reduce their intake of saturated fat from food sources such as animal fats (e.g. meat fat, poultry skin, lard, suet, cream, butter) and tropical oils such as coconut oil and palm oil.

Top tips to reduce saturated fat intake

- Avoid adding fat to vegetables, on bread, during cooking or in baking.
- Use reduced-salt stock cubes and avoid drippings to make gravy.
- Trim the fat off meat and remove the skin from poultry before cooking.
- Beware of processed meats (e.g. sausages, salamis, streaky bacon, burgers), as they contain a lot of saturated fat.



Top tip

Always trim the fat from meat and remove skin from chicken before cooking.

'Extra-virgin' means...

...the oil is made from a single press of olives and is not filtered.

This oil is a darker colour and contains more substances, such as polyphenols, which may help reduce the harmful effects of LDL cholesterol.



Beware...

Tropical oils such as coconut oil and palm oil are very high in saturated fat and should be avoided.



Worried about heart disease?

The mix of foods most people need for good health includes some saturated fat.

Valuable foods such as lean red meat (iron), low-fat dairy products (calcium), oily fish (vitamin D and omega-3) and nuts (protein and fibre) contain some saturated fat.

This saturated fat is not a concern because these foods also provide nutrients that protect against heart disease.

Enjoy these foods in recommended amounts to get all the benefits with minimal amounts of saturated fat.

Monounsaturated fats and oils

- Are liquid to semi-solid at room temperature
- Have a low smoke point, so they burn at lower temperatures and are not ideal for cooking
- Are best used sparingly in dressings, dips and cold dishes
- Do not raise blood cholesterol
- Can be used sparingly to replace saturated fats and oils
- Include rapeseed oil, olive oil, sesame seed oil, almond oil and peanut oil.

Top tips to reduce saturated fat intake

- If using olive oil in a salad dressing, place a small amount of dressing at the bottom of the bowl first and then toss the salad to coat all the leaves.

Polyunsaturated fats and oils

- Are always liquid at room temperature, and spreads made from these fats and oils are always very soft
- A balance of the two types of polyunsaturated fatty acids (PUFA) – PUFA n-6 (omega-6) and PUFA n-3 (omega-3) – are needed for health.

PUFA n-6 (omega-6)

- PUFA n-6 is found in sunflower oil, safflower oil, sesame seed oil, almonds and spreads made from these.
- This range of sources makes it easy for people in Ireland to get PUFA n-6.
- PUFA n-6 lowers blood cholesterol and can be used sparingly to replace saturated fats and oils to protect heart health.

PUFA n-3 (omega-3)

- There are two types of PUFA n-3:
 1. PUFA n-3 found in flax seeds, chia seeds, rapeseed oil and soya bean oil
 2. Very long-chain PUFA n-3 (EPA and DHA) found in oily fish (e.g. salmon, mackerel, herring).
- People in Ireland should try to include some PUFA n-3 – especially EPA and DHA.
- PUFA n-3 lowers blood pressure, reduces inflammation and blood clotting. Include small amount to protect heart health.

Remember

Polyunsaturated fats and oils are just as high in calories as saturated fats, so use sparingly.



Trans fats and oils

- These are hard fats which have been processed (hydrogenated) so that liquid oils become solid at room temperature. They are used in processed foods because they improve texture and increase shelf life.
- Trans fats increase heart disease risk because they increase harmful LDL cholesterol and reduce protective HDL cholesterol.
- Intake of trans fats should be kept as low as possible.
- The biggest food sources of trans fats are processed foods such as crackers, pies, pastries, biscuits, cakes and confectionery.
- Small amounts of trans fats naturally occur in meat and dairy products. It is easy to keep intake of trans fats from these sources low by simply choosing low-fat dairy and lean cuts of meat.

EU update on trans fats in processed food

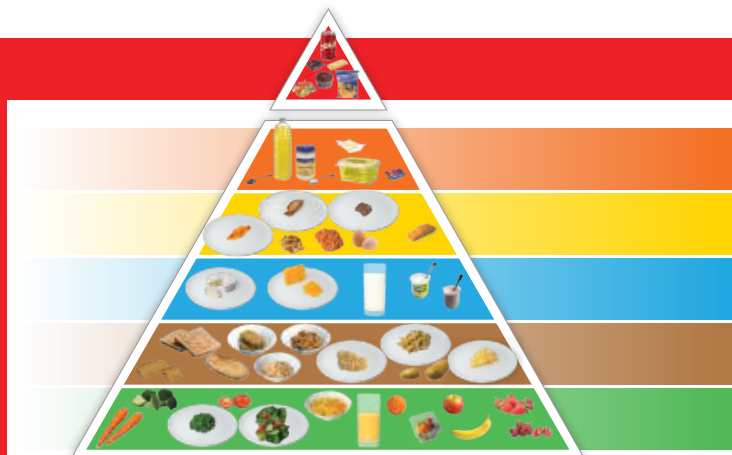
Many countries impose a legal limit on the amount of trans fat permitted in processed food.

A legal limit on trans fats in processed foods is being considered by the EU.

In Ireland, very little trans fat has been used in processed foods since the late 1990s.

Foods and drinks high in fat, sugar and salt

- NOT every day
- Maximum once or twice a week



These foods are high in calories, fat, sugar and salt, but low in fibre, vitamins and minerals.

Everyone needs to limit these foods.

The fat and sugar in biscuits, cakes, crisps, crackers, confectionery, etc. means they are very high in calories. The types of fats in these foods are harmful for heart health.

Since these foods increase the risk of overweight and heart disease, intake of these should be limited to sometimes but not every day.

While people enjoy these foods, the amounts eaten must be limited.

Healthy snacking is all about eating fruits, vegetables, low-fat dairy and high-fibre breads and cereals instead of high-fat, high-sugar and high-salt snacks and confectionery.

Calorie guide for foods and drinks high in fat, sugar and salt



One can (330 mL) of regular cola

139

calories and easy to drink a lot without feeling full





Two chocolate biscuits

170

calories and high in fat and saturated fat



One packet (37 g) crisps

192

calories and high in fat and salt



Average (50 g) chocolate bar

260

calories and high in fat, saturated fat and sugar



One small slice of apple tart

288

calories and high in fat, saturated fat and sugar



One iced doughnut

190 – 400

calories and high in fat, saturated fat and sugar



One large chocolate muffin

420

calories and high in fat, saturated fat and sugar

Portion size reference guide

Go to page 32 to see the full Portion size reference guide.

5ml teaspoon

This can guide your portion size for jam, marmalade or honey.



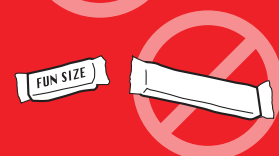
Not too much

Share a standard size or opt for 'fun size'.



Not too often

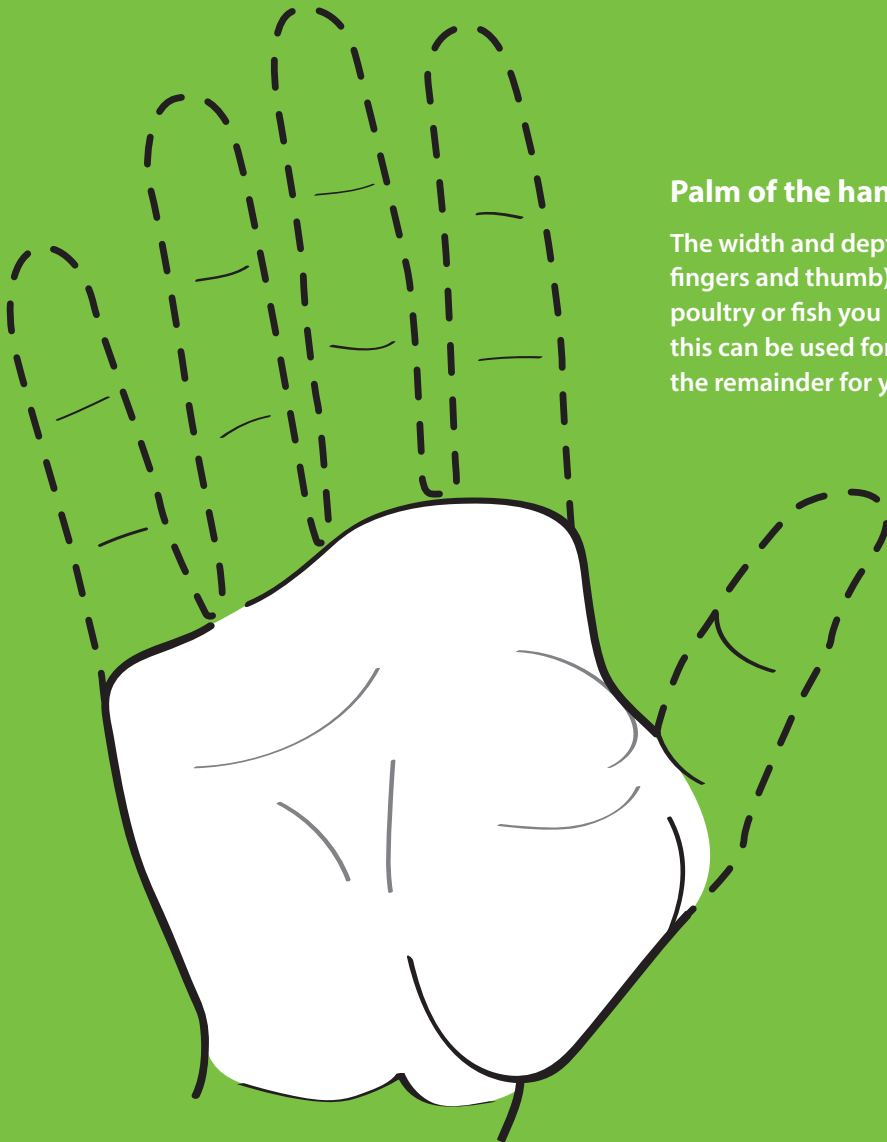
Enjoy these foods sometimes but not every day.



Portion size reference guide

Portion pack

Portions of butter or spread found in cafés can guide the amount to use. For example, one pat of fat spread is more than enough for one slice of bread – try to make it do for two. Reduced fat monounsaturated and polyunsaturated spreads are best.



Palm of the hand

The width and depth of your palm (without fingers and thumb) shows how much meat, poultry or fish you need in a day. Most of this can be used for your main meal, with the remainder for your light meal.



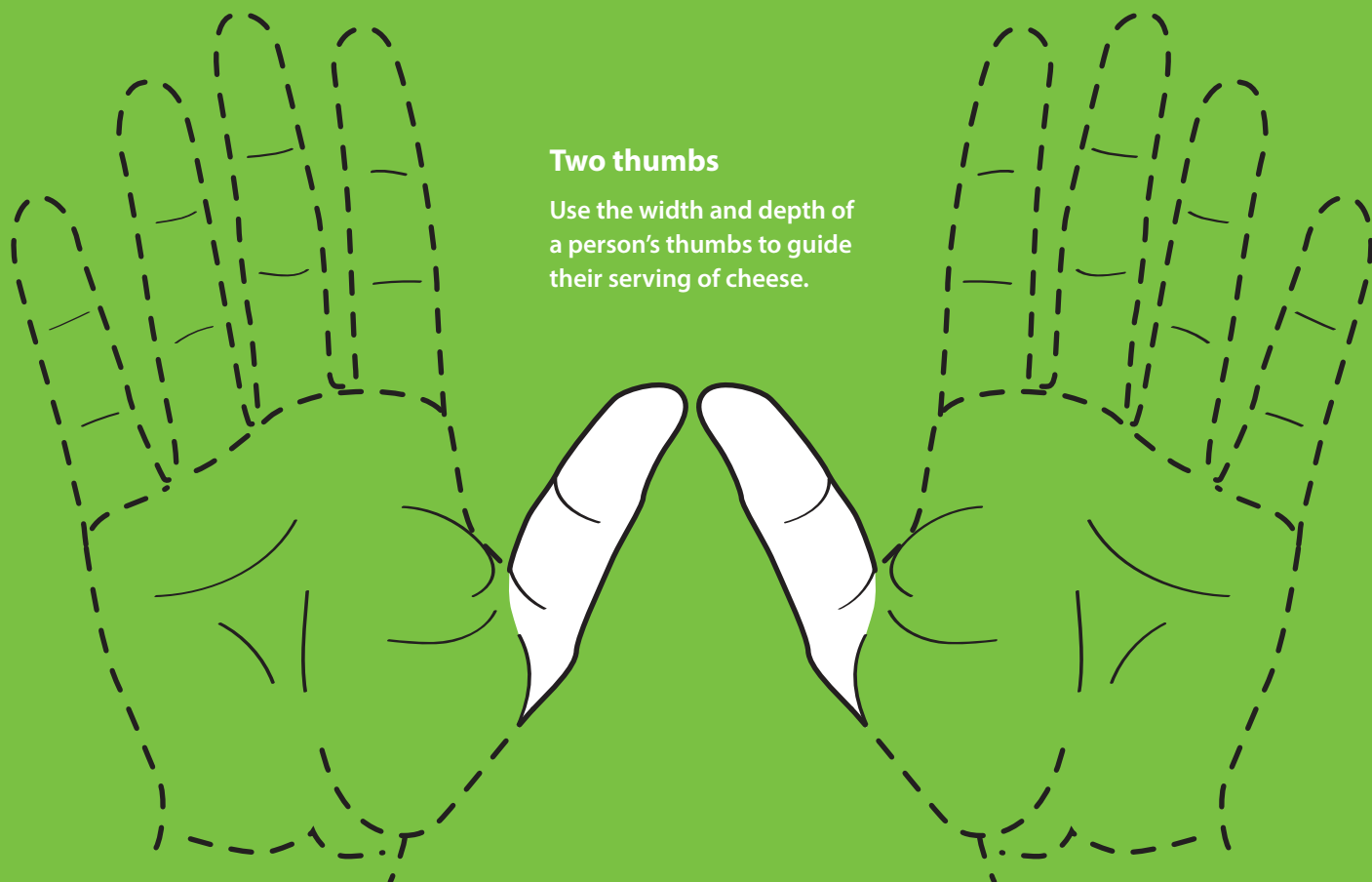
200 mL disposable cup

Use a disposable plastic cup to guide portion sizes of cereals, cooked rice and pasta, and even vegetables, salad and fruit.



5ml teaspoon

This can guide your portion size for peanut butter, jam, marmalade or honey.



Two thumbs

Use the width and depth of a person's thumbs to guide their serving of cheese.

Young girls (5–12 years)

Healthy eating is important for girls aged 5–12 years because:

- They are growing.
- From five years of age, growth is gradual until they reach puberty, when growth is more rapid.
- Puberty can start as young as 8 years old or as late as 11 or 12 years old.
- Growth spurt at puberty lasts about four years.

A healthy diet helps young girls reach their full physical and mental potential and:

- Promotes healthy weight gain
- Protects against iron deficiency
- Helps girls develop a taste for the foods they need to keep healthy for the rest of their lives.

See page 54 for information on the number of calories girls need each day.



Foods and drinks high in fat, sugar and salt

NOT every day



Fats, spreads and oils

In very small amounts



Meat, poultry, fish, eggs, beans and nuts

2 servings per day



Milk, yogurt and cheese

3 to 5 servings per day



Wholemeal cereals and breads, potatoes, pasta and rice

3 to 4 servings per day
(very active girls will need more)



Vegetables, salad and fruit

5 to 7 servings per day

Being active every day is necessary for healthy growth and development

- Girls need to be active for at least 60 minutes every day.
- Activities which strengthen muscles and bones and increase flexibility should be included three times a week (see www.GetIrelandActive.ie for ideas).
- Moderate to vigorous activities are best, such as running, skipping, cycling, swimming, chasing and dancing, as well as team sports such as basketball, football and camogie.



Remember

Between 5 and 12 years of age, girls learn how to:

- Enjoy healthy eating
- Have fun being active
- Feel good about themselves

Did you know?

In general, girls enter puberty about two years earlier than boys.



These foods are high in calories, fat, sugar and salt, and need to be limited.

See page 30 for a calorie guide



A teaspoon can guide a portion size of jam, honey or marmalade.

Use small amounts of reduced-fat spreads. Cook with as little oil as possible – boil, bake, steam and grill instead.

See page 27 for a guide to serving sizes



Portions of butter or spread found in cafés can guide the amount to use. Reduced-fat monounsaturated and polyunsaturated spreads are best. One portion pack is more than enough for one slice of bread – try to make it do for two.

Choose lean meat and poultry. Eat fish twice a week – choose oily fish once. Limit processed meats such as sausages, bacon and ham.

See page 19 for a guide to serving sizes



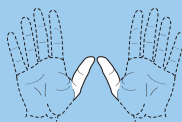
The width and depth of a child's palm is a guide to how much meat, poultry or fish they need in a day.



Use a 200 mL disposable cup to guide portion size. For example: ¾ cup peas, beans or lentils.

Choose low-fat varieties. Enjoy low-fat milk and yogurt more often than cheese.

See page 15 for a guide to serving sizes



Use the width and depth of a child's thumbs to guide their portion size of cheese.



Use a 200 mL disposable cup to guide a portion of milk or yogurt.

Wholemeal and wholegrain are best. Younger and smaller girls need less than older and bigger girls.

See page 11 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ½ cup raw porridge oats | One cup cooked brown rice | 1½ cups cooked brown pasta.

Base your meals on these and enjoy a variety of colours. More is better.

See page 7 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ½ cup cooked carrots | One cup raw peppers | ½ cup blueberries.

Young boys (5–12 years)

Healthy eating is important for boys aged 5–12 years because:

- They are growing.
- From five years of age, growth is gradual until they reach puberty, when growth is more rapid.
- Puberty can start as young as 10 years or as late as 13 or 14 years.
- Growth spurt at puberty lasts about four years.

A healthy diet helps young boys reach their full physical and mental potential and:

- Promotes healthy weight gain
- Provides enough vitamins and minerals
- Supports rapidly developing muscles
- Helps boys develop a taste for the foods they need to keep healthy for the rest of their lives.

See page 54 for information on the number of calories boys need each day.



Foods and drinks high in fat, sugar and salt

NOT every day



Fats, spreads and oils

In very small amounts



Meat, poultry, fish, eggs, beans and nuts

2 servings per day



Milk, yogurt and cheese

3 to 5 servings per day



Wholemeal cereals and breads, potatoes, pasta and rice

3 to 5 servings per day
(very active boys will need more)



Vegetables, salad and fruit

5 to 7 servings per day

Being active every day is necessary for healthy growth and development

- Boys need to be active for at least 60 minutes every day.
- Activities which strengthen muscles and bones and increase flexibility should be included three times a week (see www.GetIrelandActive.ie for ideas).
- Moderate to vigorous activities are best, such as running, skipping, cycling, swimming and chasing, as well as team sports such as basketball, football and hurling.



Remember

The right combination of food and exercise during this time helps boys to reach their full potential.

Did you know?

Puberty starts with a growth spurt that is the fastest growth in life after babyhood.



These foods are high in calories, fat, sugar and salt, and need to be limited.

See page 30 for a calorie guide



A teaspoon can guide a portion size of jam, honey or marmalade.

Use small amounts of reduced-fat spreads. Cook with as little oil as possible – boil, bake, steam and grill instead.

See page 27 for a guide to serving sizes



Portions of butter or spread found in cafés can guide the amount to use. Reduced-fat monounsaturated and polyunsaturated spreads are best. One portion pack is more than enough for one slice of bread – try to make it do for two.

Choose lean meat and poultry. Eat fish twice a week – choose oily fish once. Limit processed meats such as sausages, bacon and ham.

See page 19 for a guide to serving sizes



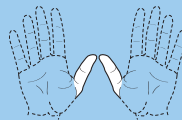
The width and depth of a child's palm is a guide to how much meat, poultry or fish they need in a day.



Use a 200 mL disposable cup to guide portion size. For example: $\frac{3}{4}$ cup peas, beans or lentils.

Choose low-fat varieties. Enjoy low-fat milk and yogurt more often than cheese.

See page 15 for a guide to serving sizes



Use the width and depth of a child's thumbs to guide their portion size of cheese.



Use a 200 mL disposable cup to guide a portion of milk or yogurt.

Wholemeal and wholegrain are best. Younger and smaller boys need less than older and bigger boys.

See page 11 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: $\frac{1}{3}$ cup raw porridge oats | One cup cooked brown rice | $\frac{1}{2}$ cups cooked brown pasta.

Base your meals on these and enjoy a variety of colours. More is better.

See page 7 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: $\frac{1}{2}$ cup cooked carrots | One cup raw peppers | $\frac{1}{2}$ cup blueberries.

Teenage girls (13–18 years)

Healthy eating is important for girls aged 13–18 years because:

- They are growing until they reach 18 years.
- It promotes healthy weight gain.
- They need more iron to cover growth and menstruation.
- They are building bones to last a lifetime.
- New fat stores are developing with the help of the oestrogen, which supports bone development.

Every girl needs to know:

- Taking a folic acid supplement when sexually active prevents birth defects in the event of pregnancy.
- Take 400 µg of folic acid every day; supplements are best.

See pages 54 and 55 for information on the number of calories teenage girls need each.



Foods and drinks high in fat, sugar and salt

NOT every day



Fats, spreads and oils

In very small amounts



Meat, poultry, fish, eggs, beans and nuts

2 servings per day



Milk, yogurt and cheese

5 servings per day



Wholemeal cereals and breads, potatoes, pasta and rice

**Moderately active:* 4 servings per day
Inactive: 3 servings per day
(*very active teenage girls will need more)**



Vegetables, salad and fruit

5 to 7 servings per day

Girls need every encouragement to be active during this time

- Teenage girls need to be active for at least 60 minutes every day.
- Activities which strengthen muscles and bones and increase flexibility should be included three times a week (see www.GetIrelandActive.ie for ideas).
- Moderate to vigorous activities are best, such as running, skipping, cycling and swimming, as well as team sports such as basketball, football and camogie.



Did you know?

A girl's body changes dramatically between 13 and 18 years of age. Eating the right food and being active protects self-esteem and promotes a healthy body image.



Remember

The right food and exercise during this time strengthens bones, builds muscle and promotes healthy weight gain.

These foods are high in calories, fat, sugar and salt, and need to be limited.

See page 30 for a calorie guide



A teaspoon can guide a portion size of jam, honey or marmalade.

Use small amounts of reduced-fat spreads. Cook with as little oil as possible – boil, bake, steam and grill instead.

See page 27 for a guide to serving sizes



Portions of butter or spread found in cafés can guide the amount to use. Reduced-fat monounsaturated and polyunsaturated spreads are best. One portion pack is more than enough for one slice of bread – try to make it do for two.

Choose lean meat and poultry. Eat fish twice a week – choose oily fish once. Limit processed meats such as sausages, bacon and ham.

See page 19 for a guide to serving sizes



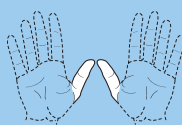
The width and depth of a teenager's palm is a guide to how much meat, poultry or fish they need in a day.



Use a 200 mL disposable cup to guide portion size. For example: ¾ cup peas, beans or lentils.

Choose low-fat varieties. Enjoy low-fat milk and yogurt more often than cheese.

See page 15 for a guide to serving sizes



Use the width and depth of a teenager's thumbs to guide their portion size of cheese.



Use a 200 mL disposable cup to guide a portion of milk or yogurt.

Wholemeal and wholegrain are best. Younger and smaller teenagers need less than older and bigger teenagers.

See page 11 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ⅓ cup raw porridge oats | One cup cooked brown rice | 1½ cups cooked brown pasta.

Base your meals on these and enjoy a variety of colours. More is better.

See page 7 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ½ cup cooked carrots | One cup raw peppers | ½ cup blueberries.

Teenage boys (13–18 years)

Healthy eating is important for boys aged 13–18 years because:

- Between 14 and 16 years of age, many boys are still going through puberty.
- They have big appetites and need more food to support their growth at this time.
- Bigger and more active boys will need more food than smaller boys and those who are less active.
- It promotes healthy weight gain.
- They are building bones to last a lifetime.
- Enough iron is needed to cover growth.

See pages 54 and 55 for information on the number of calories teenage boys need each day.



Foods and drinks high in fat, sugar and salt

NOT every day



Fats, spreads and oils

In very small amounts



Meat, poultry, fish, eggs, beans and nuts

2 servings per day



Milk, yogurt and cheese

5 servings per day



Wholemeal cereals and breads, potatoes, pasta and rice

**Moderately active:* 5 to 7 servings per day
Inactive: 4 to 5 servings per day
(*very active teenage boys will need more)**



Vegetables, salad and fruit

5 to 7 servings per day

The right food and exercise during this time helps boys reach their potential

- Teenage boys need to be active for at least 60 minutes every day.
- Activities which strengthen muscles and bones and increase flexibility should be included three times a week (see www.GetIrelandActive.ie for ideas).
- Moderate to vigorous activities are best, such as running, cycling and swimming, as well as team sports such as football, hurling, rugby and basketball.

Did you know?

Healthy eating and active living are crucial for boys to reach their full potential body size and strength.



Remember
 Good body image is important for boys. Eating the right food and being active protects self-esteem and promotes a healthy body image.

These foods are high in calories, fat, sugar and salt, and need to be limited.
 See page 30 for a calorie guide



A teaspoon can guide a portion size of jam, honey or marmalade.

Use small amounts of reduced-fat spreads. Cook with as little oil as possible – boil, bake, steam and grill instead.
 See page 27 for a guide to serving sizes



Portions of butter or spread found in cafés can guide the amount to use. Reduced-fat monounsaturated and polyunsaturated spreads are best. One portion pack is more than enough for one slice of bread – try to make it do for two.

Choose lean meat and poultry. Eat fish twice a week – choose oily fish once. Limit processed meats such as sausages, bacon and ham.
 See page 19 for a guide to serving sizes

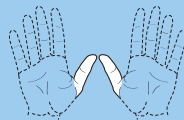


The width and depth of a teenager's palm is a guide to how much meat, poultry or fish they need in a day.



Use a 200 mL disposable cup to guide portion size. For example: ¾ cup peas, beans or lentils.

Choose low-fat varieties. Enjoy low-fat milk and yogurt more often than cheese.
 See page 15 for a guide to serving sizes



Use the width and depth of a teenager's thumbs to guide their portion size of cheese.



Use a 200 mL disposable cup to guide a portion of milk or yogurt.

Wholemeal and wholegrain are best. Younger and smaller teenagers need less than older and bigger teenagers.
 See page 11 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ½ cup raw porridge oats | One cup cooked brown rice | 1½ cups cooked brown pasta.

Base your meals on these and enjoy a variety of colours. More is better.
 See page 7 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ½ cup cooked carrots | One cup raw peppers | ½ cup blueberries.

Women (19–50 years)

Healthy eating is important for women aged 19–50 years because:

- Their bodies need to be prepared to support a pregnancy.
- Calcium and vitamin D are needed for bone health.
- Iron is needed to cover menstrual losses.
- This promotes a healthy weight during the child-bearing years.
- This protects against female cancers and heart disease.

Every woman needs to know:

- 70% of neural tube defects in babies (such as spina bifida) can be prevented if women take folic acid before becoming pregnant.
- Sexually active women of child-bearing age should take a 400 µg folic acid supplement every day to help prevent neural tube defects in the event of pregnancy.

See pages 54 and 55 for information on the number of calories women need each day.



Foods and drinks high in fat, sugar and salt

NOT every day



Fats, spreads and oils

In very small amounts



Meat, poultry, fish, eggs, beans and nuts

2 servings per day



Milk, yogurt and cheese

3 servings per day



Wholemeal cereals and breads, potatoes, pasta and rice

Moderately active:* 4 to 5 servings per day
Inactive: 3 to 4 servings per day
 (*very active adult women will need more)



Vegetables, salad and fruit

5 to 7 servings per day

Being active helps to strengthen bones, build muscle and maintain weight

- Adult women need to be active for at least 30 minutes on five days of the week.
- Moderate-intensity activities are best, such as brisk walking, jogging, cycling and swimming.
- Short 10 minute bouts of activity count towards the recommended 30 minutes.
- See www.GetIrelandActive.ie for tips on keeping active.



Did you know?

The ages of 19–50 years is the time when many women in Ireland become overweight. Healthy eating and active living are crucial for a healthy weight.



Remember

Adulthood is the time to develop long-lasting good eating habits which protect health for life.



These foods are high in calories, fat, sugar and salt, and need to be limited.
See page 30 for a calorie guide



A teaspoon can guide a portion size of jam, honey or marmalade.

Use small amounts of reduced-fat spreads. Cook with as little oil as possible – boil, bake, steam and grill instead.
See page 27 for a guide to serving sizes



Portions of butter or spread found in cafés can guide the amount to use. Reduced-fat monounsaturated and polyunsaturated spreads are best. One portion pack is more than enough for one slice of bread – try to make it do for two.

Choose lean meat and poultry. Eat fish twice a week – choose oily fish once. Limit processed meats such as sausages, bacon and ham.
See page 19 for a guide to serving sizes

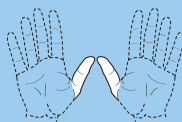


The width and depth of an adult's palm is a guide to how much meat, poultry or fish they need in a day.



Use a 200 mL disposable cup to guide portion size. For example: ¾ cup peas, beans or lentils.

Choose low-fat varieties. Enjoy low-fat milk and yogurt more often than cheese.
See page 15 for a guide to serving sizes



Use the width and depth of an adult's thumbs to guide their portion size of cheese.



Use a 200 mL disposable cup to guide a portion of milk or yogurt.

Wholemeal and wholegrain are best. Less active adults need fewer servings.
See page 11 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ⅓ cup raw porridge oats | One cup cooked brown rice | 1½ cups cooked brown pasta.

Base your meals on these and enjoy a variety of colours. More is better.
See page 7 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ½ cup cooked carrots | One cup raw peppers | ½ cup blueberries.

Men (19–50 years)

Healthy eating is important for men aged 19–50 years because:

- They have stopped growing and are at very high risk of becoming overweight and obese.
- Attention to portion size and number of servings is needed.

The food choices men ages 19–50 years make are important because:

- Risk of heart disease increases during this time.
- There are many ways food protects against heart disease and cancer.

See pages 54 and 55 for information on the number of calories men need each day.



Foods and drinks high in fat, sugar and salt

NOT every day



Fats, spreads and oils

In very small amounts



Meat, poultry, fish, eggs, beans and nuts

2 servings per day



Milk, yogurt and cheese

3 servings per day



Wholemeal cereals and breads, potatoes, pasta and rice

**Moderately active:* 5 to 7 servings per day
Inactive: 4 to 6 servings per day
(*very active adult men will need more)**



Vegetables, salad and fruit

5 to 7 servings per day

Being active helps to strengthen bones, build muscle and maintain weight

- Adult men need to be active for at least 30 minutes on five days of the week.
- Moderate-intensity activities are best, such as brisk walking, jogging, cycling and swimming.
- Short 10 minute bouts of activity count towards the recommended 30 minutes.
- See www.GetIrelandActive.ie for tips on keeping active.



Remember
Healthy eating habits, attention to portions and active living are crucial for a healthy weight.



Did you know?

At age 19, four in every five men in Ireland are a healthy weight. By age 50, only one in every five men in Ireland is a healthy weight.

Eating for a healthy heart is more important for men because they are at higher risk for heart disease than women.

These foods are high in calories, fat, sugar and salt, and need to be limited.
See page 30 for a calorie guide



A teaspoon can guide a portion size of jam, honey or marmalade.

Use small amounts of reduced-fat spreads. Cook with as little oil as possible – boil, bake, steam and grill instead.
See page 27 for a guide to serving sizes



Portions of butter or spread found in cafés can guide the amount to use. Reduced-fat monounsaturated and polyunsaturated spreads are best. One portion pack is more than enough for one slice of bread – try to make it do for two.

Choose lean meat and poultry. Eat fish twice a week – choose oily fish once. Limit processed meats such as sausages, bacon and ham.
See page 19 for a guide to serving sizes

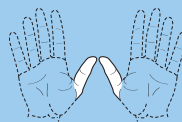


The width and depth of an adult's palm is a guide to how much meat, poultry or fish they need in a day.



Use a 200 mL disposable cup to guide portion size. For example: ¾ cup peas, beans or lentils.

Choose low-fat varieties. Enjoy low-fat milk and yogurt more often than cheese.
See page 15 for a guide to serving sizes



Use the width and depth of an adult's thumbs to guide their portion size of cheese.



Use a 200 mL disposable cup to guide a portion of milk or yogurt.

Wholemeal and wholegrain are best. Less active adults need fewer servings.
See page 11 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ⅓ cup raw porridge oats | One cup cooked brown rice | 1½ cups cooked brown pasta.

Base your meals on these and enjoy a variety of colours. More is better.
See page 7 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ½ cup cooked carrots | One cup raw peppers | ½ cup blueberries.

Older women (51+ years)

Healthy eating is important for women aged 51 years and older because after menopause:

- Women need to eat for a healthy heart.
- Bone loss increases dramatically, and calcium and vitamin D protect bone health.

The food choices women aged 51 years and older make are important for a healthy body weight.

See pages 54 and 55 for information on the number of calories older women need each day.



Did you know?

Women need less iron after menopause. When the child-bearing years are over, women no longer need to take extra folic acid.



	Foods and drinks high in fat, sugar and salt	NOT every day
	Fats, spreads and oils	In very small amounts
	Meat, poultry, fish, eggs, beans and nuts	2 servings per day
	Milk, yogurt and cheese	3 servings per day
	Wholemeal cereals and breads, potatoes, pasta and rice	Moderately active:* 3 to 4 servings per day Inactive: 3 servings per day (*very active older women may need more)
	Vegetables, salad and fruit	5 to 7 servings per day

Being active every day helps strengthen bones and improve balance

- Older women need to be active for at least 30 minutes on five days of the week.
- Moderate-intensity activities are best, such as brisk walking, jogging, cycling and swimming.
- Aerobic, muscle-strengthening and balance exercises help reduce the risk of falls (see www.GetIrelandActive.ie for ideas on suitable exercises).



Did you know?

Healthy eating and being active protects heart and bone health in older women.

Fewer than 3 in every 10 women over the age of 50 in Ireland are a healthy weight. Healthy eating and active living are crucial for weight control.



These foods are high in calories, fat, sugar and salt, and need to be limited.

See page 30 for a calorie guide



A teaspoon can guide a portion size of jam, honey or marmalade.

Use small amounts of reduced-fat spreads. Cook with as little oil as possible – boil, bake, steam and grill instead.

See page 27 for a guide to serving sizes



Portions of butter or spread found in cafés can guide the amount to use. Reduced-fat monounsaturated and polyunsaturated spreads are best. One portion pack is more than enough for one slice of bread – try to make it do for two.

Choose lean meat and poultry. Eat fish twice a week – choose oily fish once. Limit processed meats such as sausages, bacon and ham.

See page 19 for a guide to serving sizes



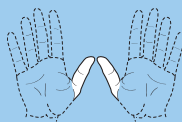
The width and depth of an adult's palm is a guide to how much meat, poultry or fish they need in a day.



Use a 200 mL disposable cup to guide portion size. For example: ¾ cup peas, beans or lentils.

Choose low-fat varieties. Enjoy low-fat milk and yogurt more often than cheese.

See page 15 for a guide to serving sizes



Use the width and depth of an adult's thumbs to guide their portion size of cheese.



Use a 200 mL disposable cup to guide a portion of milk or yogurt.

Wholemeal and wholegrain are best. Less active adults need fewer servings.

See page 11 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ½ cup raw porridge oats | One cup cooked brown rice | 1½ cups cooked brown pasta.

Base your meals on these and enjoy a variety of colours. More is better.

See page 7 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ½ cup cooked carrots | One cup raw peppers | ½ cup blueberries.

Older men (51+ years)

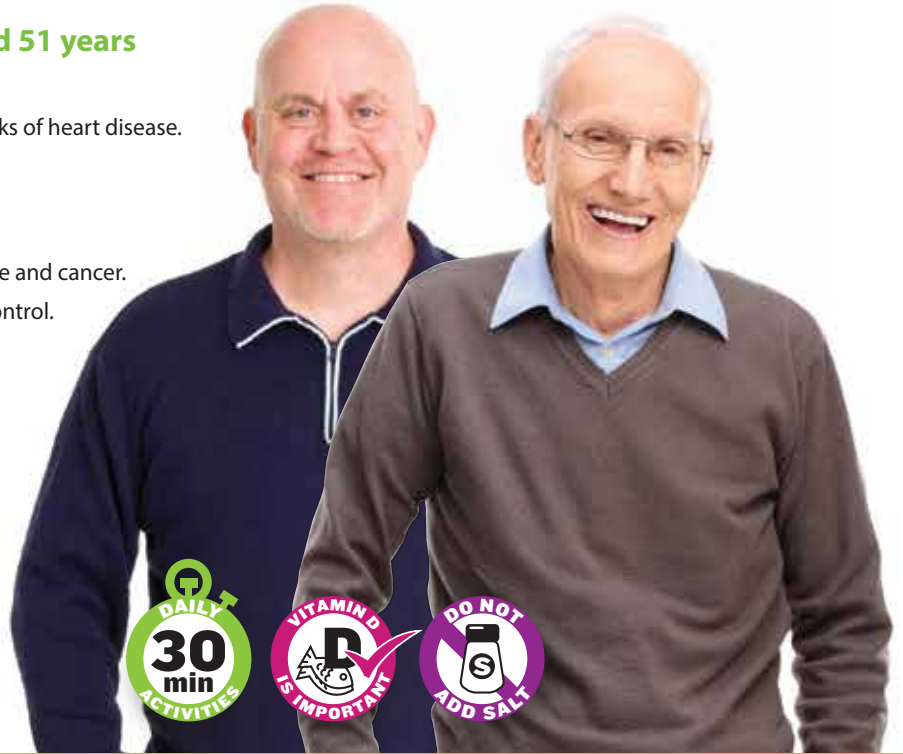
Healthy eating is important for men aged 51 years and older because:

- The right food choices protect against the increasing risks of heart disease.

Just 1 out of every 10 men over the age of 50 in Ireland is a healthy weight, but:

- Healthy eating reduces the risk of diabetes, heart disease and cancer.
- Healthy eating and active living are crucial for weight control.

See pages 54 and 55 for information on the number of calories older men need each day.



Did you know?

Only 1 in every 10 men over the age of 50 in Ireland is a healthy weight.



Foods and drinks high in fat, sugar and salt

NOT every day



Fats, spreads and oils

In very small amounts



Meat, poultry, fish, eggs, beans and nuts

2 servings per day



Milk, yogurt and cheese

3 servings per day



Wholemeal cereals and breads, potatoes, pasta and rice

**Moderately active:* 4 to 5 servings per day
Inactive: 4 servings per day
(*very active older men may need more)**



Vegetables, salad and fruit

5 to 7 servings per day

Being active every day helps strengthen bones and improve balance.

- Older men should be active for at least 30 minutes on five days of the week.
- Moderate-intensity activities are best, such as brisk walking, jogging, cycling and swimming.
- Aerobic, muscle-strengthening and balance exercises help reduce the risk of falls (see www.GetIrelandActive.ie for ideas on suitable exercises).



Did you know?

Over the age of 50, the ageing process is gradual and consistent in men compared to the dramatic changes women experience, e.g. menopause.

As men get older, they lose lean body stores (muscle). Healthy eating and active living protect against this.



Top tip

Eating well and being active are key for healthy ageing.

These foods are high in calories, fat, sugar and salt, and need to be limited.

See page 30 for a calorie guide



A teaspoon can guide a portion size of jam, honey or marmalade.

Use small amounts of reduced-fat spreads. Cook with as little oil as possible – boil, bake, steam and grill instead.

See page 27 for a guide to serving sizes



Portions of butter or spread found in cafés can guide the amount to use. Reduced-fat monounsaturated and polyunsaturated spreads are best. One portion pack is more than enough for one slice of bread – try to make it do for two.

Choose lean meat and poultry. Eat fish twice a week – choose oily fish once. Limit processed meats such as sausages, bacon and ham.

See page 19 for a guide to serving sizes



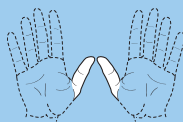
The width and depth of an adult's palm is a guide to how much meat, poultry or fish they need in a day.



Use a 200 mL disposable cup to guide portion size. For example: ¾ cup peas, beans or lentils.

Choose low-fat varieties. Enjoy low-fat milk and yogurt more often than cheese.

See page 15 for a guide to serving sizes



Use the width and depth of an adult's thumbs to guide their portion size of cheese.



Use a 200 mL disposable cup to guide a portion of milk or yogurt.

Wholemeal and wholegrain are best. Less active adults need fewer servings.

See page 11 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ⅓ cup raw porridge oats | One cup cooked brown rice | 1½ cups cooked brown pasta.

Base your meals on these and enjoy a variety of colours. More is better.

See page 7 for a guide to serving sizes



Use a 200 mL disposable cup to guide portion size. For example: ½ cup cooked carrots | One cup raw peppers | ½ cup blueberries.

Pregnancy

Healthy eating during pregnancy benefits the long-term health of mother and baby.

A mother's nutrition during pregnancy directly affects her unborn baby's development and lifelong health. Healthy eating during pregnancy is also important to protect a woman's own health and well-being.

Healthy weight gain in pregnancy

For healthy weight gain in pregnancy, the small amount of extra calories needed should come from extra dairy, wholemeal cereals or fruit and vegetables.

Foods to include during pregnancy

- Aim to eat oily fish (such as salmon, mackerel, trout and herring) once a week for vitamin D and omega-3 fatty acids (DHA).
- Have three servings from the milk, yogurt and cheese group every day for calcium.
- Take a folic acid supplement until the 12th week of pregnancy.

Did you know?

Some pregnant women need extra iron and vitamin D.

Seek medical advice and remember that low-dose supplements are best.



Top tip

Visit www.fsai.ie for the guide *Best Practice for Infant Feeding in Ireland*. It contains important information on healthy eating before and during pregnancy.



Foods and drinks to limit in pregnancy

- Limit caffeine to 200 mg per day (see page 63 for the caffeine content of common drinks).
- Limit tuna intake to once a week for fresh tuna and not more than two 8 oz cans of tinned tuna per week.

Foods and drinks to avoid in pregnancy

- Avoid liver and pâté due to high vitamin A levels.
- Avoid alcohol, as no amount is safe in pregnancy.
- Avoid predatory fish which contain mercury, such as shark, marlin and swordfish (see page 23 for more information on eating fish in pregnancy).

Important reminder on food safety in pregnancy

Safe hand hygiene practices should always be used when preparing food.

Some foods can contain bacteria which may harm the baby in the womb, e.g. *Listeria monocytogenes*. To protect against this, pregnant women should:

- Avoid unpasteurised milk and cheeses
- Avoid uncooked cured or smoked meats
- Avoid uncooked cured or smoked fish.



Remember

Avoid supplements containing vitamin A.

Did you know iron is difficult to absorb?

The most easily absorbed iron is found in red meat (beef, lamb and pork). Include lean red meat three times a week.

Beans, peas and lentils also provide iron – because it's less easily absorbed, eat with vitamin C-rich foods.



Remember

Pregnancy is the time to prepare for breastfeeding.

Pregnant women and their partners should be given opportunities to discuss breastfeeding with their healthcare provider. Expectant mothers should be encouraged to attend local breastfeeding support groups.

Visit www.breastfeeding.ie for more information.

Top tip

To absorb more iron, eat vitamin C-rich foods with iron-rich foods.

Vitamin C-rich foods include green leafy salads, vegetables, tomatoes and citrus fruits (oranges, lemons and limes).



Breastfeeding

Breastfeeding has a huge range of health benefits for a baby and gives babies the best start in life.

Everyone in Ireland needs to encourage and support breastfeeding.

Breastfeeding protects a baby's health

Breast milk is perfectly suited to meet a baby's needs. The nutrients in breast milk change to suit the individual needs of a baby as they grow and develop.

Breastfeeding has a wide range of benefits. Babies who are breastfed are less likely to develop:

- Ear, stomach, respiratory and urinary tract infections
- Diabetes, allergies, asthma and eczema
- Obesity.

Breastfeeding also significantly protects against sudden infant death syndrome (SIDS).

Premature babies who are breastfed are less likely to develop sepsis and necrotising enterocolitis (NEC).

Breastfeeding protects a mother's health

Breastfeeding has a wide range of benefits for a mother's health too, including:

- Lower risk of postnatal depression
- Faster return to pre-pregnancy weight
- Lower risk of breast and ovarian cancer
- Reduced risk of diabetes
- Stronger bones in later life.

Remember

Breastfeeding is the most natural way to feed a baby. Mothers may experience some challenges as they learn this new skill, but with the right help and advice, most mothers can breast feed for as long as they want to.



Did you know?

Partners, grandparents and friends need to get involved and provide practical help and support to a breastfeeding mother.

There are over 200 breastfeeding support groups around the country. Visit www.breastfeeding.ie/support to find one near you.



Healthy eating during breastfeeding

Women do not need a special diet in order to breastfeed. Breastfeeding mothers should follow the healthy eating guidelines for their age group and:

- Eat oily fish (such as salmon and mackerel) up to once a week for vitamin D and omega-3 fatty acids.
- Speak to a health professional about the need to take a low-dose vitamin D supplement.
- Consume three low-fat portions from the milk, yogurt and cheese group every day for calcium.
- Drink at least 2 L of water every day, as breastfeeding increases thirst.
- Limit caffeine to two to three cups of caffeinated drinks each day. Caffeine passes into breast milk and can cause poor sleep and irritability in an infant.

Expressing breast milk

Expressing breast milk is a useful skill for mothers to learn.

If a mother's baby needs to be cared for in the special care baby unit, expressing breast milk enables a mother to contribute to her baby's care.

In the early days, hand expressing can be used to relieve breast fullness. As the baby gets older, expressed breast milk allows a mother to continue to breastfeed, even if she is away from her baby for a time.

See www.breastfeeding.ie or www.fsai.ie for information on how breast milk can be safely expressed, stored and used to feed a baby.

Alcohol and breastfeeding

Alcohol passes into breast milk. The safest option when breastfeeding is to avoid alcohol, especially in the first month, when feeds are frequent. If breastfeeding mothers wish to drink alcohol, it should be in moderation and allow enough time for alcohol to leave the system before the next breastfeed.

See page 66 for guidelines on alcohol intake.

Smoking and breastfeeding

Smoking reduces milk supply and increases the risk of SIDS. Chemicals from cigarettes can be passed to an infant through breast milk, so mothers should:

- Avoid smoking when breastfeeding.
- Never smoke in the house.
- Never expose an infant to smoke.

Top tip

Visit www.fsai.ie for the guide *Best Practice for Infant Feeding in Ireland*. It contains important information on all aspects of breastfeeding.



How many calories are needed in a day

A rough guide to how many calories are needed in a day by people who are '**moderately active**'*

'Average people' means people who are lean and of average height because body size affects calorie needs (smaller people need less and bigger people need more).

Average boy
(5–12 years)

1,400–2,200
calories



Average girl
(5–12 years)

1,400–2,000
calories



Average teenage boy
(13–18 years)

2,400–2,800
calories



Average teenage girl
(13–18 years)

2,000
calories



Average adult male
(19–50 years)

2,400–2,800
calories



Average adult female
(19–50 years)

2,000–2,200
calories



Average older adult male
(51+ years)

2,200–2,400
calories



Average older adult female
(51+ years)

1,800
calories



* **Definition:** 'Moderately active' means walking 1.5 to 3 miles a day (at a rate of three to four miles per hour) – or any equivalent exercise – on top of activities of daily living (showering, getting dressed, etc.)
Be aware that people who are more active than this will need more calories.

Remember

Active living promotes health and prevents disease.

Everyone should be active.

A rough guide to how many calories are needed in a day by people who are 'sedentary'*

'Average people' means people who are lean and of average height because body size affects calorie needs (smaller people need less and bigger people need more).

All children need to be active for healthy growth and development.



Average teenage boy (13–18 years)

2,200 calories



Average teenage girl (13–18 years)

1,800 calories



Average adult male (19–50 years)

2,000 calories



Average adult female (19–50 years)

1,800 calories



Average older adult male (51+ years)

2,000 calories



Average older adult female (51+ years)

1,600 calories



* **Definition:** Sedentary' means being minimally active and only doing activities of daily living (showering, getting dressed, preparing food, etc.) **Be aware that people who are more active than this will need more calories.**

Be aware
 Living in today's world makes people sedentary. Take action and get active. Sedentary people have more body fat and less muscle. Being more active will improve this.

Everyone needs to be active to be healthy

Active living is one of the best ways to improve health – at all stages and all body sizes.

'Active living' means being active in EVERYTHING people do, EVERY DAY. Active living and healthy eating are key in order for people to be as healthy as possible.

Ways to be active in everyday living

- People are more active when outdoors – get out as much as possible.
- Spend more time outdoors – take walks in a park, woodland, mountains or seaside.
- Walk or cycle short distances instead of driving, e.g. to school, work or the shops.
- Take the stairs instead of the lift or escalator.
- Household and gardening chores keep people active.

Remember

Active parents have active children.



Activity levels and food needs are closely linked.

People who are active need more food and have greater flexibility in food choice.

People who are not active (sedentary) must limit their food intake to avoid becoming overweight.



Food advice in this guide differs for people who are active and people who are sedentary.

See pages 38 to 49 for food advice on teenagers, adults and older adults.



Being active for children means doing at least 60 minutes of moderate to vigorous activity every day.

Possible activities include:

- Chase games
- Skipping with a rope
- Playground games
- Tennis
- Martial arts
- Swimming
- Basketball
- Rugby
- Cycling
- Football
- Hurling
- Camogie
- Dancing



Being active for adults means doing at least 30 minutes of moderate-intensity activity at least five days a week.

Possible activities include:

- Jogging
- Brisk walking
- Medium-paced cycling
- Swimming
- Gardening
- Football
- Camogie
- Tennis
- Dancing



Active living and healthy eating to lose weight

- Do at least 60–75 minutes of moderate-intensity exercise every day.
- Follow the healthy eating advice in this food guide.

Active living and healthy eating for keeping weight off following weight loss

- Keep active.
- Do at least 60 minutes of moderate-intensity exercise every day.
- Remember that following weight loss a person’s smaller body size needs fewer calories than the amount needed for their larger body size.
- Follow the healthy eating advice in this food guide.

The benefits of active living with healthy eating are enormous for everyone.

These benefits include better protection against heart disease, diabetes, some types of cancer and osteoporosis.

Active living is also necessary for good mental health. Regular exercise is proven to reduce stress and enhance well-being.



Did you know?

Being active is key to maintaining weight loss.

Be active for 60–90 minutes most days and enjoy being fitter and slimmer!



Top tip

For more advice on being active, visit: www.GetIrelandActive.ie



Vitamin D – The ‘sunshine vitamin’

Everyone needs vitamin D for strong and healthy bones.

At Ireland’s latitude (51–55° north), from March to September, people can make vitamin D from strong sunlight – but this is not safe due to the risk of skin cancer. People need to eat foods that are rich in vitamin D or take a supplement that contains vitamin D. This is especially important in Autumn and Winter.

Only a few foods are naturally rich in vitamin D

Oily fish is the best natural source of vitamin D. However, choosing trout, mackerel or salmon once a week provides less than a third of the amount of vitamin D that people need (see table below).

Other foods (such as eggs) contain small amounts of vitamin D – see table below.

Vitamin D content of foods naturally rich in vitamin D

FOOD	SERVING	VITAMIN D
Salmon	100 g	8 µg
Trout	100 g	10 µg
Mackerel	100 g	8.6 µg
Tuna	100 g	3 µg
Sardines	100 g	5 µg
Eggs	1 egg	2 µg

Foods fortified with vitamin D

Choosing fortified foods will help to boost vitamin D intake. Check food labels to find out how much vitamin D is contained in a serving.

Amounts of vitamin D in fortified foods

FOOD	SERVING	VITAMIN D
Milk with added vitamin D	200 mL glass	4 µg
Cereal with added vitamin D	30–40 g	1.5 to 2.9 µg
Yogurt with added vitamin D	125 g pot	0.8 to 5.0 µg
Cheese with added vitamin D	One cheese string	1.3 µg



Did you know?

Sunscreen prevents the skin from making vitamin D, but it should always be used in order to protect skin from sunburn.

Vitamin D-rich foods and low-dose vitamin D supplements are the safest sources of vitamin D.



Remember

Food (including supplements) needs to provide 10 µg vitamin D every day for everyone aged five years and over.

Vitamin D-rich foods and low-dose vitamin D supplements are the most reliable and safe sources of vitamin D.



People who do not eat foods which are rich in vitamin D should take a vitamin D supplement.

Taking a low-dose supplement provides enough vitamin D to meet our needs while safely allowing for extra vitamin D coming from food.

Why is oily fish so good for us?

Eating oily fish up to once a week is an excellent way of getting vitamin D.

Oily fish also provides other nutrients which are hard to get. Oily fish provides essential fatty acids (DHA and EPA) which protect against heart disease and stroke.



Top tip

A low-dose vitamin D supplement is best.

Choose a product which provides a maximum of 5–10 µg of vitamin D per day.

Be careful

Many food supplements contain vitamin D, such as multivitamins, fish oils and omega-3 capsules.

It is important not to double up on vitamin D.

For example, a person taking fish oils and a multivitamin may be getting twice the vitamin D they are aiming for.

Warning: Taking very high amounts of vitamin D can be harmful



- Taking more than 5 to 10 times the recommended amount of vitamin D is **unsafe**.
 - More than five times the recommended dietary amount is unsafe for children.
 - More than 10 times the recommended dietary amount is unsafe for adults.
- Supplements should be kept **out of reach of children** who are at greater risk because of their small body size.
- While liver and kidney meats contain vitamin D, these foods should not be given to **babies** or eaten by **pregnant women** because they contain high levels of vitamin A.
- **Beware:** There are many high-dose vitamin D supplements on the market.

Healthy eating on a budget

Healthy eating is an important part of reducing the risk of obesity, heart disease, stroke and cancers.

Cost of food affects food choice, so the information on these pages is all about making healthy food choices on a budget.

Top tips for healthy eating on a budget

Plan weekly meals and make a grocery list.

- Use coupons, vouchers and special deals to buy items on the grocery list.
- Shop at low-cost supermarkets if possible.
- Do a weekly grocery shop, even when shopping for one.
- Cook meals and make lunches instead of buying takeaways.
- Use what is needed from 'value packs' and freeze the rest for later.
- 'Own-brand' foods can be better value than 'brand name' foods – but check the nutrition label to see what they contain.
- Plain porridge is low in calories, high in fibre and is the best-value breakfast cereal.
- Large wholemeal sliced pans can be frozen – thaw slices as needed.
- Low-fat milk costs the same as full-fat milk.

Tips to get 'five to seven a day' the affordable way

- Buy in-season vegetables, salads and fruit:
 - Spring and summer: use carrots, lettuce, tomatoes, cucumber and spring onions
 - Autumn and winter: use cabbage, cauliflower, celery, onions, carrots, parsnips and turnips
 - Year round: use tinned and frozen vegetables throughout the year.
- Bulk up casseroles, stews and lean mince meat dishes using low-cost vegetables such as carrots, onions, peas, parsnips, turnips and tinned tomatoes.

Top tip

To make the best food choices, read nutrition labels when shopping.

For advice on reading labels, see pages 13 and 16.



Top tip

To reduce food waste, pay attention to expiry dates on food.

Always store food in a suitable place (e.g. cupboard, fridge) and at the right temperature.



Tips for affordable lean meat, poultry, fish and alternatives

- Stretch meat and poultry further by bulking up stews and casseroles with extra vegetables and pulses (peas, beans and lentils).
- Look for affordable cuts of meat such as the housekeeper's cut (top rib) and lean stewing meat – cook slowly to increase tenderness.
- Mackerel and herring are good value and great sources of vitamin D and heart-healthy fatty acids (EPA and DHA).
- Look out for special offers on more expensive oily fish such as salmon.
- White fish such as whiting and haddock are good value and are high in protein but low in fat.

Tips on affordable healthy snacks

Choose healthy low-fat snacks such as:

- Piece of seasonal fresh fruit
- Baked apple slices
- Banana on brown bread
- Low-fat yogurt
- Homemade rice pudding
- Wholemeal salad sandwich
- Beans on wholemeal toast
- Scrambled eggs on brown bread.



Did you know?

Vegetarian alternatives – such as eggs, peas, beans and lentils – are a low-cost source of good-quality protein. These foods are also low in fat and calories and are a good source of fibre.

The most expensive food items tend to be at eye level in shops, so 'bend and stretch' for better value.

The Money Advice and Budgeting Service (MABS) has developed a cookbook (101+ Square Meals) with lots of low-cost and healthy recipes.

For more information visit www.mabs.ie

SPECIAL OFFERS

Remember

Look for special offers on fruits and vegetables. Do not be tempted by special offers on foods and drinks which are high in fat, sugar and salt, e.g. biscuits, crisps and sweets.



Drink plenty of fluids

Water is the best drink. It replaces fluid without adding extra calories or stimulants such as caffeine.

Not drinking enough water during the day can cause tiredness and poor concentration.



How much fluid do people need in a day?

Children (5–8 years)

Girls and boys need **1.6 L**

Children (9–13 years)

Girls need **1.9 L**

Boys need **2.1 L**

Teenagers and adults

Girls and women need **2 L**

Boys and men need **2.5 L**

Sports and energy drinks

Sports and energy (calories) drinks can be high in sugar, caffeine and other stimulants.

- These drinks are not suitable for children and young teenagers.
- Most people do not need the extra calories provided by these drinks.
- Following the advice in this guide provides enough calories for active living – water is the best drink.

Did you know?

Thirst is a sign that a person is already dehydrated. The best way to stay hydrated is to drink water steadily throughout the day.

Sweat loss increases the need for fluids. Increase fluid intake in high temperatures or when very active.

Water and milk are the best drinks for dental health. Diet drinks are sugar-free but their acidity can damage teeth.

Food contributes to the fluid people need every day. Foods such as fruit, vegetables, soups, stews and yogurts provide fluid.



All about caffeine

Caffeine is a stimulant which can be mildly addictive. It is found naturally in coffee, tea and cocoa. Caffeine is also added to soft drinks and energy drinks.

Be aware of the amount of caffeine

HOT DRINKS	SERVING	AVERAGE CAFFEINE
Coffee (brewed)	One cup	111 mg
Coffee (instant)	One cup	78 mg
Coffee (decaffeinated)	One cup	4 mg
Espresso	One shot	40 mg
Black tea	One cup	44 mg
Herbal tea	One cup	0 mg
Hot cocoa	One cup	8 mg

The exact amount of caffeine will vary according to cup size, brewing method and brand of coffee or tea.
One cup = 200 mL One shot = 30 mL

SOFT DRINKS	SERVING	AVERAGE CAFFEINE
Snapple (regular and diet)	480 mL	42 mg
Pepsi	500 mL	32 mg
Pepsi Max	500 mL	30 mg
Coke	500 mL	29 mg
Diet Coke	500 mL	39 mg
7UP (regular and diet)	500 mL	0 mg
Red Bull	250 mL	80 mg
Monster	500 mL	160 mg

FOODS	SERVING	AVERAGE CAFFEINE
Milk chocolate	50 g bar	11 mg
Dark chocolate	50 g bar	31 mg
Coffee ice cream	50 g scoop	16 mg



Top tip
For non-pregnant adults, up to 400 mg of caffeine per day raises no safety concerns.

Spread out caffeine intake.
Up to 200 mg at a time is best because it can take 4–16 hours to clear caffeine from the body.



Did you know?

In the EU, Ireland has the highest caffeine intake from tea and the lowest caffeine intake from coffee.

The stimulatory effects of caffeine occur within 15–30 minutes after consumption.

Excess caffeine during pregnancy increases the risk of having a low birthweight baby.

Pregnant women should consume no more than 200 mg caffeine per day.



Limit salt intake

The FSAI recommends that adults consume no more than 6 g of salt per day.

Too much salt can cause high blood pressure, which increases the risk of heart disease and stroke. In 2010, salt intakes were as high as 11 g per day among men and 8.5 g per day among women.

Health benefits of reducing salt intakes

- Lower blood pressure
- Reduced risk of heart disease and stroke
- Reduced risk of kidney disease
- More room for a broader range of flavours and tastes
- Can increase intakes of fresh and unprocessed foods.

Tips to cut back on salt

- Take the salt cellar off the table.
- Avoid adding salt during cooking.
- Use fruit to make sauces for meat and poultry, e.g. apple or cranberry sauce.
- Use lemon juice to add flavour to fish.
- Limit salty foods, especially:
 - Processed meats
 - Stock cubes
 - Instant gravies
 - Packet soups
 - Ready meals
 - Salted snacks such as popcorn and nuts
 - Food tinned in brine.
- Compare food labels and choose the option with the least amount of salt.

Did you know?

It takes a person's sense of taste about four to six weeks to adjust to less salt. After this time, it is much easier to enjoy food without added salt.

People of all ages need to cut down on salt whenever possible.



Remember

Sea salt is not better than other types of salt. All types of salt contain sodium, which is responsible for raising blood pressure.



Top tip

Use pepper, herbs, chillies, spices and vinegar to add more flavour during cooking.



Salt in everyday foods

- Most of the salt in the diet has already been added to the food consumers buy.
- Some salt comes from everyday foods recommended for healthy eating, such as breads and breakfast cereals.
- A lot of salt comes from salty foods such as processed meats, ready meals, packet foods and snacks.
- The food industry needs to continue to reduce salt in food products.
- Consumers need to check food labels and choose foods with the lowest salt content.

Using food labels to reduce salt intake

- The amount of salt per 100 g or per 100 mL of product is always provided on the food label.
- Compare labels and choose the lowest salt option as often as possible.
- Traffic light colours on front-of-pack labels identify low, medium and high salt foods, where:
 - Low is less than 0.3 g per 100 g
 - Medium is between 0.3 g and 1.5 g per 100 g
 - High is more than 1.5 g per 100 g.

Salt reduction in the food industry

- In 2003, the FSAI introduced the Salt Reduction Programme.
- Under this programme, food manufacturers have committed to gradually reduce the salt content of their food products.
- Progress has been made with important everyday foods such as bread and breakfast cereals.

Did you know?

Salt is often added to food during manufacturing. Check food labels to find the lowest salt options.

Children have a stronger sense of taste than adults. Protect children from developing a taste for salt by not adding salt during cooking and by keeping salt off the table and out of sight.



Top tip

Use front-of-pack labelling to choose the lowest-salt product. 'Low salt' may be indicated in green.

Calories	Sugars	Fat	Saturates	Salt
112	2.5g	0.3g	Trace	0.2g
6%	3%	<1%	<1%	3%

Alcohol

Drinking too much alcohol increases the risk of heart disease, stroke, liver disease and many cancers (such as mouth, throat, liver and breast cancer).

Alcohol is not a food – but it contains a lot of calories.

Alcohol units are needed to guide safe drinking limits.

A unit is a rough measure of the amount of drink that provides about 10 g of alcohol, e.g. half a pint of beer, one pub measure of spirits or one small glass (100 mL) of wine.

It takes the body one hour to process one unit of alcohol.

Did you know?

Drink sizes used to guide alcohol units are much smaller than typical drink servings. There are almost eight glasses in a standard bottle of wine.

Weekly alcohol limits have been set by the Department of Health for men and women

- Alcohol is not recommended for young people under 18 years.
- Men should drink no more than 17 standard drinks (170 g alcohol) spread over the week.
- Women should drink no more than 11 standard drinks (110 g alcohol) spread over the week.

For better health, aim to consume less than these limits and have two to three alcohol-free days a week.



Top tip

Go 'heavy on mixers and light on spirits' - use two mixers for every one measure of spirits.

Top tip

Drink water for thirst, and always have water available.



Beware... of cocktails

Cocktails are high in alcohol and calories.



Alcohol units and calories in standard drinks

½ Pint of regular beer / lager / cider (284 mL)

alc. 3.5–6.0% vol.
7.8–13.6 g alcohol



1
unit

68–286
calories

Alcopop Bottle (275 mL)

alc. 4.0–5.0% vol.
9.0–11.0 g alcohol



1
unit

220–244
calories

Single measure of spirits (35 mL)

alc. 37.5–40.0% vol.
10.4–11.0 g alcohol



1
unit

72–78
calories

Glass of red / white wine (100 mL)

alc. 9.5–14.5% vol.
7.5–11.6 g alcohol



1
unit

66–94
calories

Top tip

LOOKING FOR A SPECIAL DRINK OR BREW?

Read labels and choose drinks with the lowest 'alc. % vol.' This can have a dramatic effect on the amount of alcohol in a drink (see table above).



Food labelling

Under EU food law, food labels on pre-packed food must provide nutrition information.

Some nutrition information is mandatory and will always be on the label. Extra nutrition information is voluntary and will not always be on the label. For more information, visit www.fsai.ie for the guide Food Information on Prepacked Foods.

What information is always on labels?

Under EU food law, certain nutrition information must always be provided per 100 g or per 100 mL on a food label (see below).

Nutrition label	
TYPICAL VALUES	PER 100 G/ML
Energy	kJ/kcal*
Fat	g
of which saturates	g
Carbohydrates	g
of which sugars	g
Protein	g
Salt	g
*4.2 kJ = 1 kcal	

Be aware that 100 g of some foods may be more or less than a recommended serving.



For example, 100 g of sliced pan equals four slices, but a typical portion is only two slices.

And 100 g of lasagne is only a quarter of the typical portion people eat (400 g).

Did you know?

Front-of-pack labels repeat information on those nutrients that need to be limited for health.

What information is sometimes on labels?

The nutrition information in below is voluntary and does not have to be shown on a label, e.g. extra nutrients or nutrient values per portion.

Nutrition label		
TYPICAL VALUES	PER 100 G/ML	PER PORTION
Energy	kJ/kcal*	kJ/kcal*
Fat	g	g
of which saturates	g	g
of which monounsaturates	g	g
of which polyunsaturates	g	g
Carbohydrates	g	g
of which sugars	g	g
of which polyols	g	g
of which starch	g	g
Fibre	g	g
Protein	g	g
Salt	g	g
Vitamins and minerals	mg or µg	mg or µg
*4.2 kJ = 1 kcal		

Front-of-pack labelling is voluntary and is usually given per portion rather than per 100 g. It shows the percentage contribution of nutrients to an average adult diet (2000 kcal).

Per cream cracker (8 g)

ENERGY	FAT	SATURATES	SUGARS	SALT
153 kJ	1.2g	0.5g	0.1g	0.1g
36 kcal	MED	HIGH	LOW	MED
2%	2%	3%	<1%	2%

Percentage of an adult's reference intake
Typical values per 100 g: Energy 2280 kJ/450 kcal

Traffic light colour codes may be added to show that the amounts of fat, saturated fat, sugar and salt in a food are low (green), mid-range (orange) or high (red). Choose foods with as much green on a colour-coded label as possible.

Healthy eating guidelines versus nutrition and health claims

Healthy eating guidelines

Healthy eating guidelines advise people on the types of foods to choose and on how much to eat, so that they get all nutrients they need and are protected against the diet-related diseases common in their population.

This food advice varies depending on age and gender.

Healthy eating guidelines vary for different populations because they take account of:

- Food consumption trends
- Genetic tendency for diet-related diseases
- Available food supply
- Cultural and traditional habits.

Healthy eating guidelines are developed by national health authorities based on a range of scientific information.

Nutrition and health claims

Nutrition and health claims are used by manufacturers to market their food products.

Nutrition and health claims are regulated in the EU. All permitted claims have been scientifically assessed by the European Food Safety Authority.

Nutrition and health claims are:

- Always scientifically valid
- Developed mostly by the food industry based on scientific research in humans
- Not related to population health or the nutritional needs of people living in the EU.

Claims permitted on food labels in the EU

All health claims permitted on food and drink labels are listed in the EU Register of nutrition and health claims made on foods.

To see this register, visit www.ec.europa.eu/nuhclaims.

A nutrition claim is...

...based on the nutrients a food or drink contains (e.g. rich in vitamin C) or does not contain (e.g. fat-free).

A health claim is...

...based on the scientific link between food, nutrients and health, which is scientifically assessed by the European Food Safety Authority.

Top tip
Always check the nutrition label to find the most suitable product.

Top tip
For the guide Information on Nutrition and Health Claims visit www.fsai.ie
It describes the different types of claims and explains how food businesses can use them.



Did you know?

Nutrition labelling provides the most reliable information to guide food choice but people are attracted more by claims than by nutrition labelling.

Allergens

The 14 groups of allergens that must be declared on food labels

People can be allergic to or intolerant of many different allergens in foods or food ingredients. Under EU food law, there are 14 groups of allergens which must be declared on all food sold. This includes non-prepacked foods (loose foods) sold and any ingredients used during food preparation, e.g. flour used to coat food before frying.

Under food law, 14 groups of food allergens must be declared on prepacked and non-prepacked foods.

Non-prepacked foods are foods sold without packaging (e.g. foods in restaurants, sandwich bars, delis and shops).

Non-prepacked foods are sometimes packaged, e.g. sandwiches. Allergens must be declared on these foods.



Peanuts

and any food products containing peanuts.



Cereals containing gluten

containing gluten (wheat, rye, barley and oats) and any food products containing these cereals.



Nuts

and any food products containing nuts.



Eggs

and any food products containing eggs.



Celery

Celery and any food products containing celery.



Milk

and any food products containing milk.



Soybeans

and any food products containing soybeans.

Top tip
Food businesses must keep allergen information up to date. Always check for changes in foods which have multiple ingredients (e.g. stock).



Crustaceans

and any food products containing crustaceans.



Molluscs

and any food products containing molluscs.



Lupin beans

and any food products containing lupin.



Fish

and any food products containing fish.



Sesame seeds

and any food products containing sesame seeds.



Sulphur dioxide and sulphites

and any food products containing sulphur dioxide and sulphites at more than 10 mg/kg or 10 mg/L.



Mustard

and any food products containing mustard.

Top tip
Declaring allergens can be complicated...
Visit www.fsai.ie/allergens for detailed information on how to comply with food law.

Beware
People can be allergic to other foods, e.g. strawberries, but under food law, only these 14 allergen groups need to be declared.



Allergen labelling for food businesses

All food businesses must provide written information on allergens in all food sold, so that:

- It is clear which food the allergen information relates to.
- Allergen information is accurate and up to date.
- Customers have this before they make a purchase.
- Customers don't have to ask.

Visit www.fsai.ie/allergens for more information.

The challenge

Food product ingredients change all the time. Food businesses must inform their customers about any changes in allergens present, but this can be difficult when the food product is used in many dishes.

The solution

Use **MenuCal** – a free online tool designed by the FSAI to help food businesses comply with their legal obligation to put allergens on their menus. With MenuCal, any updates to food product ingredients automatically apply to all dishes using the product. Updated allergen information can then be printed to inform customers without delay.

MenuCal was created with the help of chefs and food businesses – it's designed for busy kitchens!

MenuCal can do an allergen search to list menu items which do not contain that allergen.

Typical allergen questions food businesses face



MenuCal features that make managing allergen information simple

- The more a food business uses MenuCal, the more tailor-made it becomes for that business. MenuCal builds a store of allergen information on food products the business uses.
- MenuCal can be used on a smartphone or tablet.



Top tip

Online training for food businesses on how to manage allergen information is available free of charge at www.MenuCal.ie



Guidance on 'may contain' allergen warning statements

- Where ingredients carry 'may contain' allergen statements, food businesses must decide themselves whether these should be passed on to consumers.
- Food businesses should understand that:
 1. Mandatory allergen statements enable consumers with allergies to make informed decisions.
 2. People with food allergies can be:
 - Very sensitive and have severe reactions
 - or**
 - Mildly sensitive and have mild reactions.



Want to let customers know about gluten?

Be aware that voluntary indications about a food being gluten free (or very low gluten) are very restricted under regulation 828/2014.

Food businesses must know the difference.

Indicating a food 'does not contain cereals providing gluten'

To label a food as 'not containing cereals providing gluten,' remember that:

- Unless foods are prepared and maintained in a gluten-free environment, they may contain gluten through cross-contamination.
- So...
- Although no cereals providing gluten have been added on purpose, the food may not be gluten free because it may have picked up some gluten from other foods in the kitchen.

Note: It is good manufacturing practice to keep foods containing allergens separate from other foods to avoid cross-contamination.

Indicating a food is 'gluten free' or 'very low gluten' means it must comply with the following rules:

- A gluten-free food contains less than 20 parts per million (ppm) (mg/kg) gluten when it is tested.
- A 'very low-gluten' food contains very little gluten (between 20 and 100 ppm [mg/kg]) when it is tested.

Did you know?

Three in every 100 people have a food allergy.

Food businesses must provide correct allergen information to prevent customers from becoming ill. MenuCal (www.MenuCal.ie) helps food businesses do this.

Top tip

Do not claim a food is gluten free unless it really is!

Gluten is found in cereals such as wheat, rye, barley and oats, and any food containing these cereals.



Calorie labelling for food businesses

Putting calories on menus is currently voluntary in Ireland.

Showing the calorie content of foods and drinks for sale in food outlets highlights the attractiveness of healthy food options and helps consumers to make food choices which benefit weight control.

How putting calories on menus helps your food business

- Consumers get what they want – over 95% of consumers in Ireland want calorie menu labelling.
- It attracts the many people in Ireland who are trying to control their weight to your food business.
- Small portions become more attractive, and there is a better profit margin on small portions.
- The portion control required for calorie menu labelling prevents food waste, saving money.
- It helps businesses to be in tune with their customers' dietary trends – remember, Mondays are 'diet days' and Fridays are 'treat days'!

Did you know?

All ages are affected by overweight in Ireland. Overweight increases the risk of heart disease, stroke, diabetes and cancer.

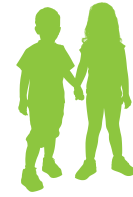
Be the food business that helps consumers be a healthy weight – put calories on your menus.

Food portion sizes have become much larger in recent years.

Calories on menus can help consumers to choose smaller portions and make healthier food choices.

Young children
(three-year-olds)

One in four is overweight



School children
(5–12 years)

One in five is overweight



Teens
(13–18 years)

One in five is overweight



Adults
(19–50 years)

Three in five are overweight



Older Adults
(51+ years)

Seven in ten are overweight



Putting calories on menus helps consumers in Ireland

- People – especially men – purchase fewer calories when calorie menu labelling is in place.
- Men and women eat the fewest calories on Mondays, but women tend to have a 'Friday feeling' and eat more calories on Fridays compared with any other day.
- Fewer people choose high-fat, high-sugar and high-salt foods such as desserts, biscuits, scones and chips.
- Significantly more people choose foods recommended for healthy eating, such as vegetables, salad and fruit.
- The longer calorie menu labelling is in place, the more effective it is.

How to put calories on menus

- Putting calories on menus is a form of labelling which is regulated by food law in Ireland.
- There is a correct way to put calories on menus.
- Correct calorie menu labelling:
 - Gives consumers the calorie values alongside the description and price of all foods and drinks on offer
 - Allows the consumer to factor calorie values into their decision on what to eat or drink before they buy
 - Adheres to the four principles of calorie menu labelling available at www.fsai.ie.

Using MenuCal to put calories on menus

- MenuCal not only helps food businesses to manage allergen labelling; it also puts calories on menus.
- If you already use MenuCal to handle allergen information, you can add calories to menus in a few easy steps.
- Visit www.MenuCal.ie for more information.



Top tip

For more resources on the correct way to put calories on menus, visit www.fsai.ie

Putting calories on menus in Ireland
TECHNICAL GUIDANCE FOR FOOD BUSINESSES
JUNE 2012



Remember

Displaying the amount of calories in food and drink for sale is a form of labelling.

The most important rule of labelling is that the consumer must not be misled.



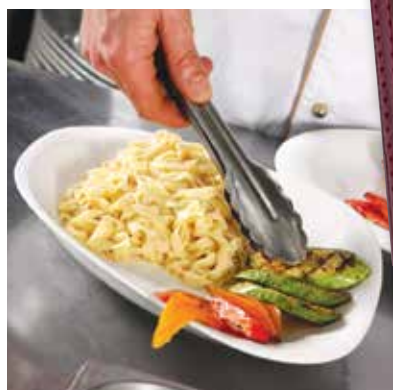
MenuCal

helps you put allergens and calories on your menu

www.menucal.ie



Category	Dish	Calories		
MAINS	Beer Battered Fish & Chips	650		
	Grilled Irish Salmon	475		
	Fish Pie	575		
	B&B Chicken	685		
	Chicken Take-Away	685		
	Beef Ramp Steak	750		
	Beef Sirloin Steak	815		
	Mixed Grill	1,125		
	Sausage & Mash	650		
	Gammon, Egg & Chips	650		
SHARING PLATTERS	The Grill Platter	1,425		
	The Suet & Tuff Platter	1,425		
	SIDES	Roasted garlic bread	164	
		Garlic bread with cheese	230	
		Beef & chip seasoned chips	378	
		Beef battered onion ring	188	
		Pan-fried mushrooms	188	
		Curry on the cob	128	
		STEAK SAUCES	Popovers	85
			Game	27
Blue Cheese			120	
<p style="font-size: x-small;">Women need around 2,000 kCal a day, men need about 2,500 kCal a day and children need about 1,800 kCal a day. We estimate that the calorie information provided is as accurate as possible. However, we may occasionally substitute ingredients as this may slightly alter the calorie value displayed.</p>				



Reformulation:

Changing processed food to reduce fat, sugar and salt

Manufacturers are reformulating processed foods to make them healthier.

There are many benefits to reformulation:

- It improves consumer food intakes without any behaviour change
- The improvement in food intake is immediate.

What is reformulation?

Reformulation changes a food by:

- Changing ingredients, so that fat, sugar and salt are reduced or
- Reducing portion size, so that fat, sugar, salt and calories decrease or
- Changing ingredients and reducing overall portion size.

As much as possible, reformulation changes are made without affecting the taste, quality or appearance of food.

Reformulation means consumer food intakes are more likely to be healthier without any change in consumer behaviour.

How is reformulation implemented?

The challenge for the food industry is reducing the fat, sugar and salt content while maintaining the taste, quality and appearance of a food. Small changes gradually introduced work best because these:

- Prevent sudden changes in a food which could affect consumer loyalty
- Help consumers adjust to reformulated products.

Did you know?

Reducing portion sizes in prepacked foods is very effective because people rarely open a second pack to make up the difference.



Remember

The commitment from the food industry to reformulate products is a valuable step towards improving health across the population.

Why reformulating foods recommended for healthy eating is a priority for the food industry

- Everyday foods such as yogurt, high-fibre breads and breakfast cereals are recommended for healthy eating – as long as they are low in fat, sugar and salt.
- An ever-changing variety of foods on sale makes choosing healthy options frustrating for consumers.
- Growing consumer awareness of food labelling on fat, sugar and salt helps them identify true healthy food options.
- There is rising demand for healthy food options.

A note for food businesses

- This food guide helps consumers understand food labels.
- Consumers are encouraged to use food labels to choose products which meet certain cut-offs for fat, sugar and salt.
- By reformulating products to reduce fat, sugar and salt, the food industry will:
 - Drive demand for reformulated products
 - Meet consumer needs
 - Reap the rewards of increased demand.

Reformulation is positive for consumers and the food industry. Regulatory bodies such as the FSAI support reformulation.

Top tip

Some yogurts can be more like desserts.

See page 16 for nutrient cut-off levels which identify the best yogurts.



Top tip

Some breakfast cereals are high in sugar, salt and fat.

See pages 12 and 13 for nutrient cut-off levels which identify the best breakfast cereals.



Did you know?

The contribution of bread to salt intakes decreased from 25% in 2001 to 22% in 2011.

Gradual reductions are needed to help consumers adjust to changes in a product while remaining loyal to the brand.



Food safety

It is important to keep food safe from harmful bacteria.

If harmful bacteria get into food, they can multiply and spoil the food or cause illness if the food is eaten. Safe food storage and preparation practices help to prevent food waste and foodborne illnesses (such as salmonella or listeria).

Keeping food at the right temperature

Bacteria thrive in warm temperatures. Food must be kept hot (above 63 °C) or cold (below 5 °C) in order to be safe.

- At high temperatures (above 63 °C), bacteria will start to die.
- At low temperatures (below 5 °C in a fridge), bacteria stay alive but do not multiply as quickly. This is why food keeps longer in the fridge than at room temperature.

Preparing and cooking food safely

- Wash vegetables under a cold running tap and remove all soil before peeling and chopping.
- Poultry, pork, liver and meat that has been chopped, minced or rolled (such as rolled joints, burgers, sausages, liver, poultry and pork) must be cooked all the way through.
- To check if meat is fully cooked, pierce the thickest part of the meat – the juices should run clear.
- Insert a meat thermometer into the thickest part of the dish; you should get an instant reading of at least 75 °C for properly cooked meat.
- Eggs must be fully cooked (i.e. hard boiled) if they are being served to babies, toddlers, pregnant women or people who are unwell.
- Visit www.safefood.eu/food-safety for more information.

Top tip

Use specific chopping boards to prepare raw meat, poultry and fish and a separate chopping board for vegetables, salad and fruit.

Wash chopping boards with hot soapy water or using a hot cycle in the dishwasher.



Remember the two-hour rule

Eat food within two hours of cooking

Keeping cooked food longer than two hours?

1. Keep food above 63 °C
or
2. Cool it quickly, cover and place it in the fridge.



Reheating

Reheat it and eat it – don't reheat more than once.

Top tip

Cook food until it reaches a temperature of 75 °C in the centre. Reheat food until it reaches a temperature of 70 °C in the centre.

Check temperature using a meat thermometer.



To avoid food waste, pay attention to 'use by' and 'best before' dates:

- **Use by** means that food should not be eaten after the date given because it may be unsafe to do so.
- **Best before** means that the quality of a food (taste, smell and appearance) is best before the date given – but the food is still safe to eat for a short time after that date.

Store food correctly

- Keep cold food cold and store it below 5 °C in a fridge.
- Cool warm food down quickly (within two hours) before covering it and placing it in the fridge.
- First in, first out – have a system for fridges, so that foods closest to their expiry date are always to the front and used first.
- Date leftovers and use within two days or discard them.
- Never refreeze food – food should only be frozen once.
- Always keep raw foods away from ready-to-eat foods.

Keep surfaces clean

- Use hot soapy water to clean worktops, utensils and any surfaces that come in contact with food.
- Disinfect worktops before and after preparing food.
- Wash chopping boards with hot soapy water or in a dishwasher after each use.
- Never put other food on a chopping board that has just been touched by raw meat, poultry or fish. Use a specific chopping board for raw meat, poultry and fish, and a separate chopping board for ready-to-eat foods.
- Change dishcloths at least every two days. Change dishcloths immediately if used to wipe up after raw meat, poultry or fish.

Top tip

Take care to store raw meats on the bottom shelf of the fridge. Store other raw food on the shelf above this, and keep ready-to-eat foods on shelves above the raw foods.



Remember

Never allow raw food to come in contact with food that doesn't need to be cooked (salad, fruit, cheese, etc.).

Top tip

For more information on safe food preparation at home, visit www.safefood.eu/food-safety.

Food businesses should visit www.fsai.ie for the guidance booklet *Safe Food To Go* for more information.



Acrylamide

Acrylamide is a probable carcinogen, but levels in food can be controlled by taking certain steps during manufacturing and processing.

Acrylamide is formed when starchy foods (such as potatoes, root vegetables and bread) are cooked at high temperatures (above 120 °C).

High cooking temperatures (during frying, grilling, baking, roasting and toasting) cause a reaction which changes food to give it a certain taste, texture, colour and smell. Acrylamide is produced as starchy foods change to become more brown and crispy.

Where is acrylamide found?

Acrylamide is not deliberately added to food. It forms when certain foods are cooked at high temperatures (about 120 °C), such as during frying, grilling, baking, roasting and toasting.

All foods can contain acrylamide, but particularly large amounts can occur in:

- Roasted potatoes
- Roasted root vegetables (carrots, parsnips, onions, turnips and sweet potatoes)
- Fried or oven-baked chips
- Toast
- Crisps
- Cakes
- Biscuits
- Cereals
- Coffee.

Did you know?

When starchy foods are cooked at temperatures above 120 °C, the Maillard reaction occurs.

This reaction is responsible for changes in the taste, texture, colour and smell of food, but also forms acrylamide.

Remember

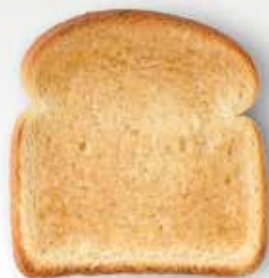
Long cooking times and high cooking temperatures form more acrylamide than short times and lower temperatures.



Blonde or brunette? When it comes to food:

Blonde is always best.

Aim for a golden yellow or blonde colour when cooking foods such as bread, potatoes or root vegetables at high



Avoid brown and never eat burnt.



Acrylamide is a compound which forms from certain naturally occurring components in food when food is prepared at temperatures above 120 °C with very little moisture. Acrylamide levels increase with certain manufacturing and cooking processes. Steps can be taken by consumers and the food industry to reduce acrylamide during food production, manufacturing and cooking.

How can acrylamide be reduced by food manufacturers and the food service industry?

- Be aware of benchmark acrylamide levels for any category of food produced (available at <https://ec.europa.eu>).
- Implement all measures possible to ensure that acrylamide levels are as low as is reasonably achievable.
- Good manufacturing practices include:
 - Using varieties of starchy food that are less prone to acrylamide production
 - Storing starchy foods at temperatures that minimise acrylamide production
 - Minimising processing at high temperatures (above 120 °C)
 - Providing clear cooking instructions that minimise acrylamide production
 - For ready-to-eat foods, aiming for a light blonde colour.
- Include these measures as part of your food safety management system (hazard analysis and critical control point/HACCP).
- Update these measures in line with any new guidance on minimising acrylamide.

How can acrylamide be reduced in the home?

To reduce acrylamide, remember to:

- **Go for blonde**
Aim for golden yellow or lighter when frying, grilling, baking, roasting or toasting starchy foods such as potatoes, root vegetables and bread.
- **Follow cooking instructions**
Always follow cooking instructions to make sure that food is cooked for the right time and at the right temperature.
- **Don't store raw potatoes in a fridge**
Storing potatoes at cold temperatures and then frying, roasting or baking them increases acrylamide levels. Always store potatoes in a cool dark place at temperatures of above 6–8 °C.

Did you know?



The European Commission is considering setting maximum levels for acrylamide in certain foods.

Top tip

Cook at less than 120 °C in order to reduce acrylamide levels. Boil, poach and stew more often.

Visit www.fsai.ie for more information on acrylamide.



Top tip

Always follow cooking instructions and never overcook food.



Remember

Eating a healthy and balanced diet with plenty of fruits and properly cooked vegetables and whole grains will help reduce cancer risk.



Evidence base for this book

All the advice in this guide is based on the best available evidence.

International best practice has been combined with up-to-date Irish research (listed below) to ensure that the advice is specific to the needs of the Irish population.

Healthy eating guidelines

Conway MC, Keaveney EM, Wicklow AW, Ní Bhriain SM, Douglas FE, Carr AT and Flynn MAT (2014) Affordability of healthy eating in Ireland in 2009 and 2014. *Proceedings of the Nutrition Society*, 73(OCE2): E75. Available at: <http://dx.doi.org/10.1017/S0029665114001049>

Department of Health (2016) Healthy food for life: the healthy eating guidelines and food pyramid. Available at: <http://www.healthyeireland.ie/health-initiatives/heg/>

Devaney NM, O'Brien CM, Burke SJ and Flynn MAT (2010) New recommendations for food-based dietary guidelines for healthy eating in Ireland. *Proceedings of the Nutrition Society*, 69(OCE5): E377. Available at: <http://dx.doi.org/10.1017/S0029665110002387>

Douglas FE, Lyons OC, Emerson KA, Ussher GD, Kielthy SE and Flynn MAT (2015, October 14–16) "Expose the gaps not the consumer": the need to implement all aspects of nutrition regulations. In: *Proceedings of the 2nd EFSA Scientific Conference*; Milan, Italy.

Emerson KA, Ussher GD, Kielthy SE, Douglas FE, Lyons OC, O'Donovan DG and Flynn MAT (2015) Addition of vitamin D to the Irish food supply: exploring the double-edged sword. *Proceedings of the Nutrition Society*, 74(OCE4): E242. Available at: <http://dx.doi.org/10.1017/S0029665115002840>

Faulkner GP, Burke SJ, O'Brien CM, Ross VM and Flynn MAT (2009) The breads, cereals and potato food group: perceptions of average portions in Ireland. *Proceedings of the Nutrition Society*, 68(OCE3): E153A.

Flynn MAT (2015) Empowering people to be healthier: public health nutrition through the Ottawa Charter. *Proceedings of the Nutrition Society*, 74(3): 303–312. Available at: <http://dx.doi.org/10.1017/s002966511400161x>

Flynn MAT, Anderson WA, Burke SJ and Reilly A (2008) Session 1: Public health nutrition Folic acid food fortification: the Irish experience: Symposium on "The challenge of translating nutrition research into public health nutrition". *Proceedings of the Nutrition Society*, 67(4): 381–389. Available at: <http://dx.doi.org/10.1017/s0029665108008720>

Flynn MAT, O'Brien CM, Faulkner G, Flynn CA, Gajownik M and Burke SJ (2012) Revision of food-based dietary guidelines for Ireland, Phase 1: evaluation of Ireland's food guide. *Public Health Nutrition*, 15(3): 518–526. Available at: <http://dx.doi.org/10.1017/s1368980011002072>

Flynn MAT, O'Brien CM, Ross V, Flynn CA and Burke SJ (2012) Revision of food-based dietary guidelines for Ireland, Phase 2: recommendations for healthy eating and affordability. *Public Health Nutrition*, 15(3): 527–537. Available at: <http://dx.doi.org/10.1017/s1368980011002084>

Kielthy SE, Emerson KA, Ussher GD, Douglas FE, Lyons OC, Lardner CM and Flynn MAT (2015) Folic acid and the prevention of neural tube defects: exploring the Irish food supply from 2007 to 2014. *Proceedings of the Nutrition Society*, 74(OCE4): E258. Available at: <http://dx.doi.org/10.1017/S0029665115003006>

Kilbane MT, O'Keane M, Morrin M, Flynn M and McKenna MJ (2014) The double-edged sword of vitamin D in Ireland: the need for public health awareness about too much as well as too little. *Irish Journal of Medical Science*, 183(3): 485–487. Available at: <http://dx.doi.org/10.1007/s11845-014-1147-7>

Lyons OC, Douglas FE, Kielthy SE, Ussher GD, Emerson KA and Flynn MAT (2015, October 14–16) The 'hit and miss' of voluntary folic acid food fortification in Ireland. In: *Proceedings of the 2nd EFSA Scientific Conference*; Milan, Italy.

Mc Menamin UC, Flynn MAT and Burke SJ (2008) Can fortified foods provide 400 µg folic acid daily? *Proceedings of the Nutrition Society*, 67(OCE7): E227. Available at: <http://dx.doi.org/10.1017/S0029665108008902>

Ross V, Burke SJ, O'Brien CM, Faulkner GP and Flynn MAT (2010) Affordability of healthy eating for low income families with children. *International Journal of Paediatric Obesity*, 5(Suppl 1): 55–56.

Ross VM, O'Brien CM, Burke SJ, Faulkner GP and Flynn MAT (2009) How affordable is healthy eating? *Proceedings of the Nutrition Society*, 68(OCE3): E107. Available at: <http://dx.doi.org/10.1017/S0029665109990632>

Labelling

Kemp BJ, White-Flynn TT, Lyons OC, Cronin BE, O'Donovan CB, Donovan CM and Flynn MAT (2017) Is it yoghurt or is it dessert? *Proceedings of the Nutrition Society*, 76(OCE3): E69. Available at: <https://doi.org/10.1017/S0029665117001422>

Lalor F, Kennedy J, Flynn MAT and Wall PG (2010) A study of nutrition and health claims – a snapshot of what's on the Irish market. *Public Health Nutrition*, 13(5): 704–711. Available at: <http://dx.doi.org/10.1017/s1368980009991613>

Ní Bhriain SM, Keaveney EM, Douglas FE, McNulty H and Flynn MAT (2014) An evaluation of the potential for non-fortified foods to bear a micronutrient claim under EU regulations. *Proceedings of the Nutrition Society*, 73(OCE2): E107. Available at: <http://dx.doi.org/10.1017/S0029665114001384>

White-Flynn TT, Kemp BJ, Cronin BE, Lyons OC, Bruton O, O'Donovan CB, Donovan CM and Flynn MAT (2017) Choosing a healthy breakfast cereal – granola takes the biscuit. *Proceedings of the Nutrition Society*, 76(OCE3): E98. Available at: <https://doi.org/10.1017/S0029665117001719>

Wicklow AW, Keaveney EM, Conway MC, Ní Bhriain SM, Douglas FE, Carr AT and Flynn MAT (2014) Children's food supplements and compliance with health claim rules. *Proceedings of the Nutrition Society*, 73(OCE2): E76. Available at: <http://dx.doi.org/10.1017/S0029665114001050>

Reformulation

Feehan O, McElroy K, Clements M, Cronin BE, Griffin B, Douglas FE, Lyons OC, Flynn MAT and McDonald K (2016) Slicing the salt content of bread in Ireland: a review of reformulation since 2003. *Proceedings of the Nutrition Society*, 75(OCE3): E90. Available at: <http://dx.doi.org/10.1017/S0029665116001051>

Obesity prevention

Clements M, Feehan O, McElroy K, Griffin B, Cronin BE, Douglas FE, Lyons OC and Flynn MAT (2016) Calories on menus and that "Friday feeling". *Proceedings of the Nutrition Society*, 75(OCE3): E89. Available at: <http://dx.doi.org/10.1017/S002966511600104X>

Courtney LM, Bennett AE, Douglas F, Keaveney EM, Crowley ÉP and Flynn MAT (2012) Technical aspects of calorie menu labelling in Ireland: stakeholder views. *Proceedings of the Nutrition Society*, 71(OCE2): E44. Available at: <http://dx.doi.org/10.1017/S0029665112001012>

Department of Health (2016) *A Healthy Weight for Ireland: Obesity Policy and Action Plan 2016–2025*. Dublin: Stationery Office. Available at: <http://health.gov.ie/blog/publications/a-healthy-weight-for-ireland-obesity-policy-and-action-plan-2016-2025/>

Department of Health and Department of Transport, Tourism and Sport (2016) Get Ireland Active! *National Physical Activity Plan for Ireland*. Dublin. Available at: <http://health.gov.ie/blog/publications/get-ireland-active-the-national-physical-activity-plan/>

Douglas FE, Bennett AE, Courtney L, Keaveney E, Crowley E and Flynn MAT (2012) Putting calories on menus in Ireland: what consumers want. *Proceedings of the Nutrition Society*, 71(OCE2): E42. Available at: <http://dx.doi.org/10.1017/S0029665112000997>

Douglas FE, Williams SJ, Keaveney EM, Ní Bhriain SM and Flynn MAT (2014) Overcoming calorie calculation challenges for fried foods within MenuCal. *Proceedings of the Nutrition Society*, 73(OCE2): E77. Available at: <http://dx.doi.org/10.1017/S0029665114001062>

Flynn MAT, Douglas FE, Williams SJ, Keaveney EM, Ní Bhriain SM, O'Connor DM, Carr AT, Wicklow AW and Conway MC (2014) Developing MenuCal© – a system to enable food businesses to put calories on their menus. *Proceedings of the Nutrition Society*, 73(OCE2): E92. Available at: <http://dx.doi.org/10.1017/S0029665114001232>

Flynn MAT, McNeil DA, Maloff B, Mutasingwa D, Wu M, Ford C and Tough SC (2006) Reducing obesity and related chronic disease risk in children and youth: a synthesis of evidence with “best practice” recommendations. *Obesity Reviews*, 7(S1): 7–66. Available at: <http://dx.doi.org/10.1111/j.1467-789X.2006.00242.x>

Gallagher SM, Flynn MAT and Burke SJ (2008) An assessment of very-low-calorie diets in Ireland. *Proceedings of the Nutrition Society*, 67(OCE7): E242. Available at: <http://dx.doi.org/10.1017/S0029665108009051>

Kelly SM, Kerr MA, McCaffrey TA, Livingstone MBE, McCarthy H, Groves C, Browne N, Douglas FE, Williams SJ, O'Connor DM and Flynn MAT (2014) Putting calories on the menu in Ireland: evaluation of an online calorie calculator for food businesses. *Proceedings of the Nutrition Society*, 73(OCE2): E59. Available at: <http://dx.doi.org/10.1017/S0029665114000883>

Kennelly JP, Logue DM, Keaveney EM, O'Connor DM, Ní Bhriain SM and Flynn MAT (2013) Calorie menu labelling in Ireland: assessment of quality and accuracy. *Proceedings of the Nutrition Society*, 72(OCE3): E168. Available at: <http://dx.doi.org/10.1017/S0029665113001912>

Logue DM, Kennelly JP, Keaveney EM, O'Connor DM, Ní Bhriain SM and Flynn MAT (2013) Calorie menu labelling in Ireland: a survey of food service businesses. *Proceedings of the Nutrition Society*, 72(OCE3): E167. Available at: <http://dx.doi.org/10.1017/S0029665113001900>

McElroy K, Clements M, Feehan O, Cronin BE, Griffin B, Douglas FE, Lyons OC and Flynn MAT (2016) Calories on menus: does impact diminish with duration or flourish after festivities? *Proceedings of the Nutrition Society*, 75(OCE3): E87. Available at: <http://dx.doi.org/10.1017/S0029665116001026>

Ussher GD, Kielthy SE, Emerson KA, Douglas FE, Lyons OC and Flynn MAT (2015) Calories on menus in Ireland – who's counting? *Proceedings of the Nutrition Society*, 74(OCE4): E238. Available at: <http://dx.doi.org/10.1017/S0029665115002803>



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The information in this document is based on the Department of Health 2017 Food Pyramid and the Food Safety Authority of Ireland 2011 report, *Scientific Recommendations for Healthy Eating Guidelines in Ireland*.