Carbohydrates and the glycaemic index
GI and weight loss

Multiplying the GI by the amount of carbohydrates (in grams) in a serving of food. {para}

A high GI food consumed in small quantities would give the same effect on blood glucose levels as larger quantities of a low GI food. GL is easily calculated by:

The glycaemic load (GL) is a concept that builds on GI, as it takes into account both the GI of the food and the amount of carbohydrate in a portion. GL is based on the idea that a high GI food consumed in small quantities would give the same effect on blood glucose levels as larger quantities of a low GI food. GL is easily calculated by multiplying the GI by the amount of carbohydrates (in grams) in a serving of food.

Summary

- The glycaemic index (GI) rates carbohydrates according to how quickly they raise the glucose level of the blood.
- The glycaemic load (GL) rates carbohydrates according to the glycaemic index and the amount of carbohydrate in the food.
- A low GI rating of a food does not mean you can eat a larger serve of that food – the total amount of carbohydrate and kilojoules consumed is still important.
- Choose a diet containing plenty of fruits, vegetables and legumes, but with smaller helpings of potatoes, and less highly refined grain products and concentrated sugar.

Foods and drinks provide fuel for our body in the form of carbohydrates, fat, protein and alcohol. Carbohydrates are the body’s preferred fuel source. The glycaemic index (GI) is a way to classify foods and drinks according to how quickly they raise the glucose level of the blood. It has replaced classifying carbohydrates as either ‘simple’ or ‘complex’.

Foods that contain carbohydrates include bread, breakfast cereals, rice, pasta, legumes, corn, potato, fruit, milk, yoghurt, sugar, biscuits, cakes and lollies.

Digesting and absorbing carbohydrates

The digestive system breaks down carbohydrates in foods and drinks into simple sugars, mainly glucose. For example, both rice and soft drink will be broken down to simple sugars in your digestive system. This simple sugar is then carried to each cell through the bloodstream.

The pancreas secretes a hormone called insulin, which helps the glucose to migrate from the blood into the cells. Once inside a cell, the glucose is ‘burned’ along with oxygen to produce energy. Our brain, muscles and nervous system all rely on glucose as their main fuel to make energy.

The body converts excess glucose from food into glycogen. Glycogen acts as a storage form of glucose within the muscle tissue and the liver. Its role is to supplement sugar levels if they drop between meals or during physical activity.

The glycaemic index (GI)

Carbohydrate-containing foods can be rated on a scale called the glycaemic index (GI). This scale ranks carbohydrate-containing foods based on their effect on blood sugar levels over a period of time – usually two hours.

Carbohydrate-containing foods are compared with glucose or white bread as a reference food, which is given a GI score of 100. The GI compares foods that have the same amount of carbohydrate, gram for gram. Carbohydrates that break down quickly during digestion have a higher glycaemic index (GI more than 70). These high GI carbohydrates, such as a baked potato, release their glucose into the blood quickly.

Carbohydrates that break down slowly, such as oats, release glucose gradually into the bloodstream. They have low glycaemic indexes (GI less than 55). The blood glucose response is slower and flatter. Low GI foods prolong digestion due to their slow break down and may help with satiety (feeling full).

Choosing between high and low GI foods

The best carbohydrate food to eat varies depending on the person and situation. For example, the rate at which porridge and cornflakes are broken down to glucose is different. People with type 2 diabetes or impaired glucose tolerance have become resistant to the action of insulin or cannot produce insulin rapidly enough to match the release of glucose into the blood after eating carbohydrate-containing foods. This means their blood glucose levels may rise above the normal level.

Porridge is digested to simple sugars much more slowly than cornflakes, so the body has a chance to respond with production of insulin, and the rise in blood glucose levels is less. For this reason, porridge is a better choice of breakfast cereal than cornflakes for people with type 2 diabetes. It will also provide more sustained energy for people without diabetes.

If a person with diabetes experiences a ‘hypo’, where the blood glucose levels fall below the normal range of 4–8 mmol/L, they need to eat carbohydrate-containing foods (preferably those with a high GI) to restore their blood sugar levels to normal quickly. For example, eating five jellybeans will help to raise blood glucose levels quickly. A person with diabetes is only at risk of a ‘hypo’ if taking certain medications or injecting insulin – speak to your doctor or diabetes nurse for more advice.

How much carbohydrate you eat is important

The amount of the carbohydrate-containing food you eat will also affect your blood glucose levels. For example, even though pasta has a low GI, it is not advisable for people with diabetes or impaired glucose tolerance to have a large serve. This is because the total amount of carbohydrate, and therefore the kilojoules, will be too high.

The glycaemic load (GL) is a concept that builds on GI, as it takes into account both the GI of the food and the amount of carbohydrate in a portion. GL is based on the idea that a high GI food consumed in small quantities would give the same effect on blood glucose levels as larger quantities of a low GI food. GL is easily calculated by multiplying the GI by the amount of carbohydrates (in grams) in a serving of food.

GI and weight loss

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A low GI diet has commonly been promoted as an effective way to help lose weight by controlling blood sugars and appetite. When high and low GI diets are compared head-to-head, however, scientific evidence has shown that there is little additional benefit for weight loss of a low GI diet over a similar diet of nutrient composition that is high GI.

While GI can be a useful guide in planning a diet and controlling blood sugar levels, it should not be the only consideration. Both the serving size of foods and the nutritional quality of the diet are just as important to consider.

**GI and exercise**

Eating low GI foods two hours before endurance events, such as long-distance running, may improve exercise capacity. It is thought that the meal will have left your stomach before you start the event, but remains in your small intestine releasing energy for a few hours afterwards. On the other hand, high GI foods are recommended during the first 24 hours of recovery after an event to rapidly replenish muscle fuel stores (glycogen).

**High GI foods are influenced by low GI foods**

Generally, eating low GI foods and high GI foods at the same time has the effect of ‘averaging’ the GI. This is important, as most foods are eaten as part of a meal and this affects the GI value of foods. For example, eating cornflakes (a higher GI food) with milk (a lower GI food) will reduce the effect on blood sugar levels.

**GI scale examples**

Some examples of the GI rating of various carbohydrates include:

- **low GI (less than 55)** – soy products, beans, fruit, milk, pasta, grainy bread, porridge and lentils
- **medium GI (55 to 70)** – orange juice, honey, basmati rice and wholemeal bread
- **high GI (greater than 70)** – potatoes, white bread and short-grain rice.

**Factors that affect the GI of a food**

Factors such as the size, texture, viscosity (internal friction or ‘thickness’) and ripeness of a food affect its GI. For instance, an unripe banana may have a GI of 30, while a ripe banana has a GI of 51. Both ripe and unripe bananas have a low GI.

Fat, protein, soluble fibre, fructose (a carbohydrate found in fruit) and lactose (the carbohydrate in milk) also generally lower a food’s glycaemic response. Fat and acid foods (like vinegar, lemon juice or acidic fruit) slow the rate at which the stomach empties and slow the rate of digestion, resulting in a lower GI.

Other factors present in food, such as phytates (used to store phosphorus in plants) in wholegrain breads and cereals, may also delay a food’s absorption and thus lower the GI.

Cooking and processing can also affect the GI – food that is broken down into fine or smaller particles will be more easily absorbed and so has a higher GI. Foods that have been cooked and allowed to cool (potatoes, for example) can have a lower GI when eaten cold than when hot.

**GI symbol on packaged foods**

Food Standards Australia New Zealand allows companies to make nutrient content claims regarding the GI of a food. The GI symbol, **G – Glycemic index tested**, indicates the GI rating of packaged food products in supermarkets. It ranks food products based on the speed at which they break down from carbohydrate to sugar in the bloodstream. However, this labelling is not compulsory for food companies to follow.

The GI symbol only appears on food products that meet certain nutrient criteria for that food category. High and intermediate GI soft drinks, cordials, syrups, confectionery and sugars are excluded. Jams, honey and other carbohydrate-containing spreads are not necessarily excluded.

**Using the GI as a guide to healthy eating**

The GI can be used as a consideration when selecting foods and drinks consistent with the Australian Guide to Healthy Eating, as long as you are aware of the limitations. For example, the GI of some everyday foods such as fruits, vegetables and cereals can be higher than discretionary (occasional) foods like biscuits and cakes.

This does not mean we should replace fruit, vegetables and cereals with discretionary choices, because the first are rich in important nutrients and antioxidants and the discretionary foods are not. GI can be a useful concept in making good food substitution choices, such as having oats instead of cornflakes, or eating grainy bread instead of white bread. In many cases, choosing the wholegrain or higher fibre option will also mean you are choosing the lower GI option.

It is not always possible or necessary to choose all low GI foods. There is room in a healthy diet for moderate to high GI foods, and many of these foods can provide important sources of nutrients. If you mix a low GI food with a high GI food, you will get an intermediate GI for that meal.

**Tips for healthy eating**

Some practical suggestions include:

- Use a breakfast cereal based on oats, barley or bran.
- Use grainy breads or breads with soy.
- Enjoy a range of fruit and vegetables.
- Eat plenty of salad vegetables with vinaigrette dressing.
- Eat a variety of carbohydrate-containing foods. If the main sources of carbohydrates in your diet are bread and potatoes, then try lentils, legumes, pasta, basmati rice and pita breads.
Focus more on the serving size of foods, rather than just their GI rating.

Expert medical supervision

If you have a medical condition, such as diabetes, it is important to seek the advice of your doctor or specialist before making any changes to your diet.

Where to get help

- Your doctor
- Dietitians Association of Australia Tel. 1800 812 942
- Nutrition Australia (Vic)
- Diabetes Victoria Tel. 1300 437 386

Things to remember

- The glycaemic index (GI) rates carbohydrates according to how quickly they raise the glucose level of the blood.
- The glycaemic load (GL) rates carbohydrates according to the glycaemic index and the amount of carbohydrate in the food.
- A low GI rating of a food does not mean you can eat a larger serve of that food – the total amount of carbohydrate and kilojoules consumed is still important.
- Choose a diet containing plenty of fruits, vegetables and legumes, but with smallerhelpings of potatoes, and less highly refined grain products and concentrated sugar.

References

Healthy eating

The following content is displayed as Tabs. Once you have activated a link navigate to the end of the list to view its associated content. The activated link is defined as Active Tab

- Healthy eating basics
- Food types
- Vitamins and supplements
- Health conditions and food
- Food science and technology
- Planning shopping and cooking
- Food safety and storage
- Dieting and diets
- Nutritional needs throughout life

Healthy eating basics

- Balancing energy in and energy out

A kilojoule is a unit of measure of energy, in the same way that kilometres measure distance.

- Body mass index (BMI)

Body mass index or BMI is an approximate measure of your total body fat.

- Children's diet - fruit and vegetables

If you eat and enjoy fruit and vegetables every day, your child may eventually follow your lead.

- Dairy and dairy alternatives

Dairy products (and dairy alternatives) are packed with calcium, protein and lots of other essential nutrients. Calcium is vital for healthy teeth and bones. It is also important for your muscles.

- Eggs

The humble egg is a powerhouse of nutritional goodness. Eggs are full of things your body needs. They are a great source of protein, antioxidants, vitamins and minerals (such as vitamin A, vitamin D).

- Energy in food (kilojoules and calories)
A kilojoule is a unit of measure of energy, in the same way that kilometres measure distance.

- **Food Standards Australia New Zealand (FSANZ)**
  
  FSANZ's role is to protect the health and safety of people in Australia and New Zealand by maintaining a safe food supply.

- **Getting enough protein**
  
  Protein is an important nutrient that helps your body grow and repair cells. Most Australians eat more than enough protein, but if you are vegetarian or vegan you may not be getting enough protein (or...)

- **Healthy eating tips**
  
  A good balance between exercise and food intake is important to maintain a healthy body weight.

- **How to cut down on salt (slideshow)**
  
  Even if you are careful about the salt you consume, you may be surprised that some of the food you eat contains hidden salt that you’re not even aware of. Learn how to cut down on salt.

- **Kids and energy needs**
  
  It’s important for kids to eat a wide variety of foods for a healthy, well-balanced diet and to be physically active. Creating healthy habits during childhood helps to ensure lifelong healthy...

- **Look after your health at harvest time (slideshow)**
  
  Farmer health, wellbeing and safety are often neglected when facing the pressures of harvest. Simple safety measures can dramatically reduce the risk of injury and illness.

**Food types**

- **Alcohol explained**
  
  The size of a standard drink can vary according to the type of alcohol.

- **Cereals and wholegrain foods**
  
  Common cereal foods include bread, breakfast cereals and pasta.

- **Dairy and dairy alternatives**
  
  Dairy products (and dairy alternatives) are packed with calcium, protein and lots of other essential nutrients. Calcium is vital for healthy teeth and bones. It is also important for your muscles.

- **Fats and oils**
  
  Animal products and processed foods like fried fast food are generally high in saturated fats.

- **Fish**
  
  Eating two or more serves of fish per week can reduce the risk of a range of diseases including dementia, depression and cardiovascular disease.

- **Foods from plants and animals**
  
  Some of the foods we eat come from animals and others come from plants.

- **Fruit and vegetables**
  
  Eating fruit and vegetables can help protect against some diseases including diabetes and some cancers.

- **Getting enough protein**
  
  Protein is an important nutrient that helps your body grow and repair cells. Most Australians eat more than enough protein, but if you are vegetarian or vegan you may not be getting enough protein (or...)

- **Herbs**
  
  Use herbs to enhance the flavour of virtually any dish, including desserts.

- **Lunch at work**
  
  Did you know lunch is just as important as breakfast? In other words, don’t skip lunch: you need it every day! A nutritious lunch will give you the energy to get through an afternoon of work.

- **Meat and poultry**
  
  Meat and poultry are a great source of protein and lots of other nutrients your body needs. Check your recommended intake of meat and poultry and try to stick with it.

- **Nutrition – Summer fruit and vegetables (video)**
Salads are a great way for you to achieve your 5 serves of veggies every day.

- Nuts and seeds
  Nuts are a healthy food and a good source of protein and healthy fats.

- Organic food
  Organic foods are farmed in a more environmentally sustainable way than conventional foods.

- Simple ways to cut down on fat (slideshow)
  Cutting down on fat is not as hard as you think. Here’s how to maintain a healthy weight by consuming the right amount and types of fat.

- Soft drinks, juice and sweet drinks - children
  Encourage children to drink and enjoy water. Sweet drinks such as juice, cordial and soft drinks may cause health problems for children if consumed in large amounts.

- Soft drinks, juice and sweet drinks – limit intake
  Consumption of drinks containing added sugar is associated with weight gain, reduced bone strength and tooth erosion and decay.

**Vitamins and supplements**

- 10 tips for getting enough vitamin D
  A balanced UV approach is required to ensure some sun exposure for vitamin D while minimising the risk of skin cancer.

- Antioxidants
  Antioxidants scavenge free radicals from the body’s cells, and prevent or reduce the damage caused by oxidation.

- Calcium
  If you don’t have enough calcium in your diet, your bones will eventually become weak and brittle.

- Folate for pregnant women
  Even women who aren’t planning to have a baby should increase their folate intake in case of unplanned pregnancy.

- Iodine
  Good sources of iodine include fortified bread and any type of seafood, including seaweed.

- Iron
  Iron is important for transporting oxygen in the blood.

- Vitamin and mineral supplements
  Taking vitamin supplements is no substitute for a healthy diet.

- Vitamin B
  The eight B-group vitamins are essential for various functions within the body.

- Vitamin D
  A balanced approach to sunlight exposure will help you get enough vitamin D while protecting against skin cancer.

- Vitamin D - maintaining levels in winter (video)
  Vitamin D is important for healthy bones, muscles and the nervous system.

- Vitamins - common misconceptions
  There is no evidence that any one vitamin can slow ageing, restore sex drive or cure infertility.

**Health conditions and food**

- Arthritis and diet
  No special diet or ‘miracle food’ can cure arthritis, but some conditions may be helped by avoiding or including certain foods.

- Asthma and food allergies
  It is important to identify any foods or food chemicals that may trigger your asthma, but this must be done under strict medical supervision.

- Cancer and food
  Diet can influence your risk of developing some cancers, but there is no evidence that specific foods can cause or cure cancer.
• **Cholesterol - healthy eating tips**
  Replacing foods that contain saturated fats with foods that contain polyunsaturated and monounsaturated fats will help to lower your cholesterol.

• **Coeliac disease and gluten sensitivity**
  Coeliac disease is an immune disease caused by gluten.

• **Diabetes and healthy eating**
  Healthy eating for people with diabetes is no different than for everyone else.

• **Eggs**
  The humble egg is a powerhouse of nutritional goodness. Eggs are full of things your body needs. They are a great source of protein, antioxidants, vitamins and minerals (such as vitamin A, vitamin D...)

• **Food allergy and intolerance**
  Food allergy is an immune response, while food intolerance is a chemical reaction.

• **Food poisoning - prevention**
  You can minimise the risk of food poisoning by taking simple precautions.

• **Getting enough protein**
  Protein is an important nutrient that helps your body grow and repair cells. Most Australians eat more than enough protein, but if you are vegetarian or vegan you may not be getting enough protein (or...)

• **Have you had an allergic reaction to packaged food?**
  The Food Standards Code requires that certain foods must be listed on the package of a food, or made known to the customer upon request. If you experience an allergic reaction to a known allergen not...

• **Health check**
  This health assessment questionnaire will identify which zones of your lifestyle are contributing to your personal health risk and provide actions you can take to make positive change.

• **Heart disease and food**
  A diet low in saturated fats and high in fibre and plant foods can substantially reduce your risk of developing heart disease.

• **Huntington's disease and diet issues**
  Weight loss is often associated with Huntington's disease, but it doesn't appear to be a direct result of diet.

• **Lunch at work**
  Did you know lunch is just as important as breakfast? In other words, don't skip lunch: you need it every day! A nutritious lunch will give you the energy to get through an afternoon of work.

• **Mood and food**
  Your mood can affect your food choices, and your food choices may affect your mood.

• **Pregnancy and diet**
  Good nutrition during pregnancy can help to keep you and your developing baby healthy.

• **Scurvy**
  Scurvy is uncommon in Australia but anyone whose diet is inadequate in vitamin C is at risk.

• **Type 2 diabetes - healthy eating and exercise (video)**
  People with type 2 diabetes talk about positive lifestyle changes that improve their quality of life.

**Food science and technology**

• **Carbohydrates and the glycaemic index**
  The glycaemic index (GI) can be a useful tool to control blood sugar levels.

• **Eggs**
  The humble egg is a powerhouse of nutritional goodness. Eggs are full of things your body needs. They are a great source of protein, antioxidants, vitamins and minerals (such as vitamin A, vitamin D...)

• **Fats and oils**
Animal products and processed foods like fried fast food are generally high in saturated fats.

- Fibre in food
  A diet high in fibre keeps the digestive system healthy.

- Food additives
  The long-term effects of consuming a combination of different additives in our food are currently unknown.

- Food - genetically modified (GM)
  Some foods include ingredients that have been genetically modified (GM), or are made using ingredients derived from GM organisms.

- Food irradiation
  Food irradiation can kill insects, moulds and bacteria, but it cannot kill viruses.

- Food labels
  Food labels carry useful information to help you make good choices about food.

- Food - pesticides and other chemicals
  Chemicals such as pesticides, antibiotics and hormones are used to boost food production and ensure adequate food supply.

- Food processing and nutrition
  Careful cooking and storage will help retain the nutrients in your food.

- Meat and poultry
  Meat and poultry are a great source of protein and lots of other nutrients your body needs. Check your recommended intake of meat and poultry and try to stick with it.

- Mercury in fish
  Pregnant women and young children should limit consumption of fish that contain high levels of mercury.

- Protein
  The human body can't store protein, so it must be supplied daily from the foods we eat.

- Salt
  Too much sodium (salt) can cause high blood pressure and many other health conditions.

- Sugar
  Too much sugar in the diet can contribute to health problems, so limit foods and drinks with high amounts of added sugar.

### Planning shopping and cooking

- 10 tips for healthy shopping
  Make a shopping list for healthier food choices... 10 tips for healthy shopping...

- Breakfast
  Children who skip breakfast may lack sufficient vitamins and minerals including iron, calcium, zinc and vitamin B2.

- Celebrations - Christmas Day the healthy way (video)
  Victorian State Public Health Nutritionist, Veronica Graham shows us how to cook a light and healthy Christmas meal without overindulging. Whatever way you celebrate, there are ways to eat healthily.

- Celebrations - healthy birthday parties (video)
  Birthday parties can be healthy as well as fun. Flip Shelton reports on some great ideas for healthy and tasty treats for your child's next birthday.

- Cooking healthy alternatives (video)
  Chef Andrew Blake shows people how to cook healthy fish and chips, spring rolls and pancakes.

- Cooking tips for busy people
  If you lack the time or motivation to cook, try these tips.

- Eating out - healthy food from different cultures (video)
  Nutritionist Shane Hilsborough takes us on a tour of Melbourne’s restaurants. Some popular food from different cultures is high in fat and kilojoules. There are...
however, some healthy alternatives...

- **Food labels**
  Food labels carry useful information to help you make good choices about food.

- **Food shopping - a family's healthy market shop (video)**

- **Food shopping - fresh produce choices at local markets (video)**
  Reporter Flip Shelton takes us on a tour and shows us what fresh produce is available at a local market.

- **Food to have sometimes**
  Junk food should be kept to a minimum. It usually contains a lot of fat, salt or sugar.

- **Food variety and a healthy diet**
  If you eat a variety of good food, your diet will provide you with adequate nutrition.

- **Healthy budget - tucker talk tips**
  You can buy more food if you spend most of your money on basic healthy foods like bread, cereals, fruit and veggies.

- **Healthy cooking tips**
  Eating healthy food doesn’t mean giving up your favourite foods and switching to eating only salad.

- **Healthy eating tips**
  A good balance between exercise and food intake is important to maintain a healthy body weight.

- **How to cut down on salt (slideshow)**
  Even if you are careful about the salt you consume, you may be surprised that some of the food you eat contains hidden salt that you’re not even aware of. Learn how to cut down on salt.

- **Lunch at work**
  Did you know lunch is just as important as breakfast? In other words, don’t skip lunch: you need it every day! A nutritious lunch will give you the energy to get through an afternoon of work.

- **Lunch - avoid the fast food fix (video)**
  Nutritionist Shane Bilsborough shows us how much energy it takes to burn off a fast food lunch. Join tradies, Corky and Danny as they find out how to maintain a healthy weight.

- **Lunch boxes - healthy shopping ideas (video)**
  Victorian State Public Health Nutritionist Veronica Graham takes us shopping for the right foods to include in your child’s lunchbox.

- **Lunch boxes - how to make them healthy (video)**
  Victorian State Public Health Nutritionist Veronica Graham shares three healthy and delicious lunchbox examples for the kids and provides some great food preparation tips to save you time throughout.

- **Reading food labels - tucker talk tips**
  Labels on packaged food can give you useful information about the nutrition, ingredients, storage and weight of the food. Add full stop to pull quote.

- **Shopping at fresh food markets (video)**
  Victorian State Nutritionist, Veronica Graham talks about the benefits of shopping at fresh produce markets.

- **Tips to keep our snacks on track (slideshow)**
  Most of us are prone to the odd snack or two. Check out these simple tips to keep your snacks on track.

**Food safety and storage**

- **Avoid food poisoning - Cook Safe (video)**
  Learn how to prepare and cook food safely at home.

- **Avoid food poisoning - Shop Safe (video)**
  Learn how to keep your hot and cold foods separate and shop safely for food.

- **Avoid food poisoning - Store Safe (video)**
  Learn how to store food safely in your fridge at home.
• Be savvy with food this summer (slideshow)
  How to keep food fresh and safe in warmer weather...

• Cockroaches
  Cockroaches prefer to live in kitchens and other food preparation areas, so they can feed off food spills...

• Don't let food poisoning ruin your summer (slideshow)
  How to avoid food poisoning this summer...

• Eggs
  The humble egg is a powerhouse of nutritional goodness. Eggs are full of things your body needs. They are a great source of protein, antioxidants, vitamins and minerals (such as vitamin A, vitamin D...)

• Emergencies - coping without gas or electricity
  In a gas or electricity blackout you may have to think laterally to come up with ways to continue bathing, eating and keeping warm...

• Fishing - eat your catch with care
  People who fish in the Lower Yarra and Maribyrnong rivers need to be careful about eating their catch because of the risk of chemical exposure...

• Food poisoning - listeria
  Listeria infection is uncommon but very dangerous for the elderly, people whose immune systems are not working properly and pregnant women and their unborn babies...

• Food poisoning - prevention
  You can minimise the risk of food poisoning by taking simple precautions...

• Food safety and storage
  High-risk food should be kept at 5 °C or below, and above 60 °C to avoid the temperature danger zone and food poisoning...

• Food safety - eggs
  To enjoy eggs safely - buy clean, keep cool and cook well...

• Food safety for summer celebrations (video)
  In the hot weather there is a higher risk of food poisoning but if you follow some simple rules when you prepare, handle and store food it will significantly reduce your risk of getting sick...

• Food safety outdoors
  Food poisoning is a real risk when taking food outside the home, especially in warmer weather...

• Food safety when cooking
  Most foods should be cooked to at least 75 °C to minimise the risk of food poisoning...

• Food safety when eating out
  If you have any doubt about the safety of food when you're out, don't eat it...

• Food safety when shopping
  When you shop, choose, pack and transport food carefully...

• Food Standards Australia New Zealand (FSANZ)
  FSANZ's role is to protect the health and safety of people in Australia and New Zealand by maintaining a safe food supply...

• Food – use-by and best-before dates
  Check the 'use-by' or 'best before' date when you buy food...

Dieting and diets

• 10 tips on how to eat more calcium
  Reduce your intake of coffee, alcohol and soft drinks…10 tips on how to eat more calcium...

• Body image and diets
  Some people diet because they have a poor body image, not because they want to be a healthy weight...

• Dairy and dairy alternatives

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Dairy products (and dairy alternatives) are packed with calcium, protein and lots of other essential nutrients. Calcium is vital for healthy teeth and bones. It is also important for your muscles.

- **Food allergy and intolerance**
  Food allergy is an immune response, while food intolerance is a chemical reaction.

- **Food for sport - tucker talk tips**
  Carbohydrate is the most important nutrient for athletes.

- **Getting enough protein**
  Protein is an important nutrient that helps your body grow and repair cells. Most Australians eat more than enough protein, but if you are vegetarian or vegan you may not be getting enough protein (or...)

- **Gluten-free diet**
  Gluten sensitivity can be managed with a gluten-free diet.

- **Heart disease and food**
  A diet low in saturated fats and high in fibre and plant foods can substantially reduce your risk of developing heart disease.

- **How to cut down on salt (slide show)**
  Even if you are careful about the salt you consume, you may be surprised that some of the food you eat contains hidden salt that you’re not even aware of. Learn how to cut down on salt.

- **Mood and food**
  Your mood can affect your food choices, and your food choices may affect your mood.

- **Simple ways to cut down on fat (slide show)**
  Cutting down on fat is not as hard as you think. Here’s how to maintain a healthy weight by consuming the right amount and types of fat.

- **Tips to keep our snacks on track (slide show)**
  Most of us are prone to the odd snack or two. Check out these simple tips to keep your snacks on track.

- **Vegetarian and vegan eating**
  A well-planned vegetarian or vegan diet can meet nutritional needs during all stages of life.

- **Vegetarian diets and children**
  Children can eat a vegetarian diet and stay healthy as long as their extra nutritional needs are met.

- **Weight loss and fad diets**
  With a balanced eating plan, it's what you leave in that makes all the difference.

- **Weight management services**
  Always consult with your doctor before choosing any weight management service.

- **Women's nutrition for life**
  ‘Nutrition for life’ identifies a woman’s four main life stages and how to eat healthily for each of them. Following this information can lead to better health at any stage of your life.

**Nutritional needs throughout life**

- **Women's nutrition for life**
  ‘Nutrition for life’ identifies a woman’s four main life stages and how to eat healthily for each of them. Following this information can lead to better health at any stage of your life.

- **Bottle feeding - nutrition and safety**
  Breastmilk or commercial infant formula is necessary for all babies less than 12 months.

- **Breastfeeding and your diet**
  Breastfeeding women need to eat regularly and include a wide variety of healthy foods in their diet.

- **Childcare and healthy eating**
  Childcare centres should provide healthy meals for your children.
Dairy and dairy alternatives
Dairy products (and dairy alternatives) are packed with calcium, protein and lots of other essential nutrients. Calcium is vital for healthy teeth and bones. It is also important for your muscles.

Disability - managing underweight
There are a number of ways that a person with a disability can successfully avoid unwanted weight loss.

Eating tips for babies
First foods for babies can be prepared easily and cheaply at home without salt, seasonings and sweeteners.

Eating tips for children (3) - older toddlers
Offer children the same foods as the family, with a variety of textures and flavours for balanced nutrition.

Eating tips for preschoolers
Children are able to decide how much food they need for activity and growth if allowed to eat according to their appetite.

Eating tips for school children
Snacks are an important part of a healthy diet for active children, so offer nutritious as well as high energy snacks.

Eating tips for young toddlers
Children have a natural ability to sense when they are hungry and when they are full.

Eggs
The humble egg is a powerhouse of nutritional goodness. Eggs are full of things your body needs. They are a great source of protein, antioxidants, vitamins and minerals (such as vitamin A, vitamin D).

Food and your life stages
The nutritional requirements of the human body change as we move through different life stages.

Food for babies - tucker talk tips
Before six months, breastmilk or formula is the only food and drink that your baby needs.

Getting enough protein
Protein is an important nutrient that helps your body grow and repair cells. Most Australians eat more than enough protein, but if you are vegetarian or vegan you may not be getting enough protein (or)

Good food for Elders - tucker talk tips
Good nutrition, a healthy diet and physical activity can help Elders prevent or manage health problems.

Healthy active Koori kids - tucker talk tips
Good nutrition and physical exercise help to keep Koori kids healthy and avoid diseases when they get older.

Healthy budget - tucker talk tips
You can buy more food if you spend most of your money on basic healthy foods like bread, cereals, fruit and vegies.

Healthy eating during pregnancy - tucker talk tips
Some foods should be avoided during pregnancy as they carry bacteria that could harm your unborn baby.

Healthy eating for adolescent girls
Eating healthy food is important at any age, but it’s especially important for teenagers.

Healthy eating for women in midlife
As you get older you need fewer calories, but your need for other nutrients remains unchanged. Healthy...

Healthy eating for women in their later years
Being well nourished improves women’s mental and physical health and quality of life at all life stages.

Healthy eating for young women
Good nutrition is especially important during this stage of your life when there is so much happening: independent living, career development, travel, establishing relationships, babies and families.

Lunch at work
Did you know lunch is just as important as breakfast? In other words, don’t skip lunch: you need it every day! A nutritious lunch will give you the energy to get
Nutrition needs when you’re over 65

Nutrition needs vary with age and gender. Now you’re older, the foods and drinks that make up a healthy diet may need to be slightly different from when you were younger. In general, you...

Related Information

- Nutrition Week
  Nutrition Week...
- Protein
  The human body can't store protein, so it must be supplied daily from the foods we eat...
- Sporting performance and food
  Good nutrition and a healthy diet are essential to improving your sports performance...
- Food labels
  Food labels carry useful information to help you make good choices about food...
- Food irradiation
  Food irradiation can kill insects, moulds and bacteria, but it cannot kill viruses...

Related information on other websites

- Dietitians Association of Australia.
- Glycemic Index Foundation.
- Life! Taking Action on Diabetes.
- Nutrition Australia.
- The Glycemic Index.

Support Groups

- Diabetes Australia - Victoria

Content Partner

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