Vitamin B
Summary

- The B-group vitamins are a collection of eight water-soluble vitamins essential for various metabolic processes.
- Most of these vitamins can’t be stored by the body and have to be consumed regularly in the diet.
- It is important not to self-diagnose a vitamin deficiency, because some vitamins can be toxic if taken incorrectly. See your doctor or dietitian for advice.

Vitamins naturally occur in food and are needed in very small amounts for various bodily functions such as energy production and making red blood cells. There are 13 vitamins that our body needs, eight of which make up the B-group (or B-complex) vitamins.

The B-group vitamins do not provide the body with fuel for energy, even though supplement advertisements often claim they do. It is true though that without B-group vitamins the body lacks energy. The body uses energy-yielding nutrients such as carbohydrates, fat and protein for fuel. The B-group vitamins help the body to use that fuel. Other B-group vitamins play necessary roles such as helping cells to multiply by making new DNA.

Vitamin B in food

Even though the B-group vitamins are found in many foods, they are water soluble and delicate. They are easily destroyed, particularly by alcohol and cooking. Food processing can also reduce the amount of B-group vitamins in foods, making white flours, breads and rice less nutritious than their wholegrain counterparts.

The body has a limited capacity to store most of the B-group vitamins (except B12 and folate, which are stored in the liver). A person who has a poor diet for a few months may end up with B-group vitamins deficiency. For this reason, it is important that adequate amounts of these vitamins be eaten regularly as part of a well-balanced, nutritious diet.

Vitamin B supplements

Taking B-group vitamin supplements can sometimes mask deficiencies of other vitamins. It is also important not to self-diagnose a vitamin deficiency because some vitamins can be toxic if taken incorrectly. See your doctor or dietitian for advice.

Types of vitamin B

There are eight types of vitamin B:

- thiamin (B1)
- riboflavin
- niacin
- pantothenic acid
- biotin
- vitamin B6 (pyridoxine)
- folate (called folic acid when included in supplements)
- vitamin B12 (cyanocobalamin).

Thiamin (B1)

Thiamin is also known as vitamin B1 and helps to convert glucose into energy and has a role in nerve function.

More information about thiamin includes:

- Good sources of thiamin – include wholemeal cereal grains, seeds (especially sesame seeds), legumes, wheatgerm, nuts, yeast and pork. In Australia, it is mandatory that white and wholemeal flour used for bread is fortified with thiamin.
- Thiamin deficiency – is generally found in countries where the dietary staple is white rice. Deficiencies in the Western world are generally caused by excessive alcohol intake and/or a very poor diet. Symptoms include confusion, irritability, poor arm or leg (or both) coordination, lethargy, fatigue and muscle weakness.
- ’Wet’ and ‘dry’ beriberi – this is caused by thiamin deficiency and affects the cardiovascular, muscular, gastrointestinal and nervous systems. As well as the above symptoms, a person with ‘dry’ beriberi suffers from a damaged nervous system due to the thiamin deficiency and may have nerve degeneration, nervous tingling throughout the body, poor arm and leg coordination, and deep pain in the calf muscles. Symptoms of ‘wet’ beriberi relate to the cardiovascular system and include an enlarged heart, heart failure and severe oedema (swelling).
- Wernicke-Korsakoff syndrome (also called ‘wet brain’) – this is a thiamin-deficiency disease linked to alcohol excess and a thiamin-deficient diet. Alcohol reduces thiamin absorption in the gut and increases its excretion from the kidneys. Symptoms of the disease include involuntary movement of the eyeball, paralysis of the eye muscle, staggering and mental confusion.
Riboflavin (B2)

Riboflavin is primarily involved in energy production and helps vision and skin health.

More information about riboflavin includes:

- Good sources of riboflavin – include milk, yoghurt, cottage cheese, wholegrain breads and cereals, egg white, leafy green vegetables, meat, yeast, liver and kidney.
- Riboflavin deficiency (riboflavinosis) – is rare and is usually seen along with other B-group vitamin deficiencies. People at risk include those who consume excessive amounts of alcohol and those who do not consume milk or milk products. Symptoms include an inflamed tongue (painful, smooth, purple-red tongue), cracks and redness in the tongue and corners of the mouth, anxiety, inflamed eyelids and sensitivity to light, hair loss, reddening of the cornea and skin rash.

Niacin (B3)

Niacin is essential for the body to convert carbohydrates, fat and alcohol into energy. It helps maintain skin health and supports the nervous and digestive systems.

Unlike other B-group vitamins, niacin is very heat stable and little is lost in cooking.

More information about niacin includes:

- Good sources of niacin – include meats, fish, poultry, milk, eggs, wholegrain breads and cereals, nuts, mushrooms and all protein-containing foods.
- Excessive intake – large doses of niacin produce a drug-like effect on the nervous system and on blood fats. While favourable changes in blood fats are seen, side effects include flushing, itching, nausea and potential liver damage.
- Niacin deficiency (pellagra) – people who drink excessive amounts of alcohol or live on a diet almost exclusively based on corn are at risk of pellagra. Others causes are associated with digestive problems where the body does not absorb niacin efficiently. The main symptoms of pellagra are commonly referred to as the three Ds – dementia, diarrhoea and dermatitis. Other symptoms include an inflamed and swollen tongue, irritability, loss of appetite, mental confusion, weakness and dizziness. This disease can lead to death if not treated.

Pantothenic acid (B5)

Pantothenic acid is needed to metabolise carbohydrates, proteins, fats and alcohol as well as produce red blood cells and steroid hormones.

Good sources of pantothenic acid are widespread and found in a range of foods, but some good sources include liver, meats, milk, kidneys, eggs, yeast, peanuts and legumes.

Pantothenic acid deficiency is extremely rare. Symptoms include loss of appetite, fatigae and insomnia, constipation, vomiting and intestinal distress.

Vitamin B6 (pyridoxine)

Pyridoxine is needed for protein and carbohydrate metabolism, the formation of red blood cells and certain brain chemicals. It influences brain processes and development, immune function and steroid hormone activity.

Some facts about vitamin B6 include:

- Good sources of pyridoxine – include cereal grains and legumes, green and leafy vegetables, fish and shellfish, meat and poultry, nuts, liver and fruit.
- Excessive intake of pyridoxine – mostly due to supplementation, can lead to harmful levels in the body that can damage nerves. Symptoms include walking difficulties and numbness in the hands and feet. Large doses of B6 taken over a long period can lead to irreversible nerve damage.
- Premenstrual syndrome (PMS) and carpal tunnel syndrome – there is some evidence that vitamin B6 may be useful in the treatment of carpal tunnel syndrome and PMS. Seek advice from a doctor before using large doses of this supplement (above 100 mg per day) because of the danger of overdose and nerve damage.
- Pyridoxine deficiency – people who drink excessive alcohol, women (especially those on the contraceptive pill), the elderly and people with thyroid disease are at particular risk of deficiency. Symptoms include insomnia, depression, anaemia, smooth tongue and cracked corners of the mouth, irritability, muscle twitching, convulsions, confusion and dermatitis.

Biotin (B7)

Biotin (B7) is needed for energy metabolism, fat synthesis, amino acid metabolism and glycogen synthesis. High biotin intake can contribute to raised blood cholesterol levels.

Good sources of biotin include cauliflower, egg yolks, peanuts, liver, chicken, yeast and mushrooms.

Biotin deficiency is very rare because biotin is widely distributed in foods and is only required in small amounts. Over-consumption of raw egg whites over periods of several months by bodybuilders, for example, can induce deficiency because a protein in the egg white inhibits biotin absorption. Symptoms include pale or grey skin, cracked sore tongue, depression, hallucinations, abnormal heart actions, loss of appetite, nausea, dry skin and scaly dermatitis, hair loss, muscle pain, and weakness and fatigue.

Folic acid (folate or B9)

Folate is needed to form red blood cells, which carry oxygen around the body. It helps the development of the foetal nervous system, as well as DNA synthesis and cell growth. Women of child-bearing age need a diet rich in folate.

If planning a pregnancy, you should consider taking supplements or eating fortified foods (vitamins added to processed food). This is important to reduce risks such as spina bifida in the baby. Folic acid is the synthetic form of folate and is used extensively in dietary supplements and food fortification.
Some facts about folate include:

- Good sources of folate—these include green leafy vegetables, legumes, seeds, liver, poultry, eggs, cereals and citrus fruits. From September 2009, all flour used in bread making (except for flour to be used in breads listed as ‘organic’) has been fortified with folic acid.
- Excessive intake—folate is generally considered non-toxic, although excessive intakes above 1,000 mg per day over a period of time can lead to malaise, irritability and intestinal dysfunction. The main risk with excessive folate intake is that it can mask a vitamin B12 deficiency, so it is best to consume these two vitamins within the recommended amounts.
- Folate deficiency—the symptoms include weight loss, tiredness, fatigue and weakness, folate-deficiency anaemia (megaloblastic anaemia) and (during pregnancy) an increased risk of a neural tube defects such as spina bifida for the baby.

Vitamin B12 (cyanocobalamin)

Vitamin B12 helps to produce and maintain the myelin surrounding nerve cells, mental ability, red blood cell formation and the breaking down of some fatty acids and amino acids to produce energy. Vitamin B12 has a close relationship with folate, as both depend on the other to work properly.

Good sources of B12 include liver, meat, milk, cheese and eggs, almost anything of animal origin.

Vitamin B12 deficiency is most commonly found in the elderly, vegans (vitamin B12 is only found in foods from animal sources) and breastfed babies of vegan mothers. Symptoms include tiredness and fatigue, lack of appetite, weight loss, heart palpitations, shortness of breath, vision loss, smooth tongue and mental problems, such as depression and memory loss.

Where to get help

- Your doctor
- Dietitians Association of Australia Tel. 1800 812 942

Things to remember

- The B-group vitamins are a collection of eight water-soluble vitamins essential for various metabolic processes.
- Most of these vitamins can’t be stored by the body and have to be consumed regularly in the diet.
- Extended cooking, food processing and alcohol can destroy or reduce the availability of many of these vitamins.
- It is important not to self-diagnose a vitamin deficiency, because some vitamins can be toxic if taken incorrectly. See your doctor or dietitian for advice.

References

- Nutrient Reference Values (NRVs) for Australia and New Zealand (including recommended dietary intakes), Australian National Health and Medical Research Council. More information here.

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betterhealth.vic.gov.au
• 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.

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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 achieve your 5 serves of vegies 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

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• 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.

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- **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 Bilsborough 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 salads.

- **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.

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**Food safety and storage**

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**betterhealth.vic.gov.au**
- 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 fridges 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...

- **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**
  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...

- **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 (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...

- **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 (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...

- **Sporting performance and food**
  Good nutrition and a healthy diet are essential to improving your sports performance...

- **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...

- **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...

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**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 veggies.

- 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 through an afternoon of work.

• 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...

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

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

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

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

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Related information on other websites

• Child and Youth Health SA - B group vitamins.
• HowStuffWorks - How B Vitamins Work.
• Nutrient Reference Values (NRVs) for Australia and New Zealand.

Content Partner

This page has been produced in consultation with and approved by: Deakin University - School of Exercise and Nutrition Sciences

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Last updated: May 2014

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