

Food and your life stages

Our nutritional needs change with different life stages. To be fit and healthy, it is important to take into account the extra demands placed on your body by these changes.

To meet your body's regular nutritional needs, you should consume:

- a wide variety of nutritious foods
- water on a daily basis
- enough kilojoules for energy, with carbohydrates as the preferred source
- essential fatty acids from foods such as oily fish, nuts, avocado
- adequate protein for cell maintenance and repair
- fat-soluble and water-soluble vitamins
- essential minerals such as iron, calcium and zinc
- foods containing plant-derived phytochemicals, which may protect against heart disease, diabetes, some cancers, arthritis and osteoporosis.

A varied diet that concentrates on fruits, vegetables, wholegrains, legumes, dairy foods and lean meats can meet these basic requirements.

Babies – birth to six months of age

Babies usually double their length and triple their weight between birth and one year of age. Breastmilk generally supplies a baby with the required amounts of nutrients, fluids and energy up to about six months of age. It is recommended that infants be exclusively breastfed up to around six months of age.

Breastmilk is preferred to infant formula where possible, as it contains many protective and immunological factors that benefit the baby's development. Fruit juice is not recommended for babies under the age of six months.

Breastmilk or correctly prepared infant formula provides enough water for a healthy baby to replace any water losses. However, all babies need extra water once solid foods are introduced.

Food for babies – six to 12 months of age

Solids should be introduced around six months of age to meet your baby's increasing nutritional and developmental needs. However, breastfeeding should continue until twelve months of age and beyond, or for as long as the mother and child desire.

Different societies have their own traditions about which food is more appropriate to start feeding a baby with. Culturally appropriate foods and preparation methods should be encouraged when these are nutritionally adequate.

As a baby is gradually weaned from the breast or bottle and new solids are introduced, there may be reduced body stores of iron. To maintain nutrient body stores:

- Give your baby foods that are rich in iron and zinc, such as iron-enriched infant cereals, pureed meats and poultry dishes, cooked plain tofu and legumes/soy beans/lentils. Iron-enriched rice-based cereals are frequently recommended as the first food to be introduced, as there is the additional benefit of a lower risk of an allergic reaction.
- Foods can be introduced in any order, provided the texture is suitable for your baby's stage of development. Foods range from fruits and vegetables (for vitamin and mineral content) to meat, poultry, fish and whole eggs..
- Do not add salt, sugar or honey to your baby's food. It is unnecessary.

- Avoid cow's milk as a drink in the first 12 months. Small amounts can be used in cereals and custards. All milk used should be pasteurised.
- Whole fruit is preferable to fruit juice. Avoid juices and sugar sweetened drinks.
- Put your baby to bed without a bottle, or take the bottle away when they have finished feeding to minimise long-term exposure of their teeth to sugar-containing liquids.
- Avoid whole nuts, seeds or similar hard foods to reduce the risk of choking.
- Introduce foods one at a time. Offer new foods once every three to four days to avoid confusion and to rule out food allergy and sensitivity.
- Feed babies during any illness and feed up after illness. Give ample liquids if your baby has diarrhoea.
- Occasional exposure of the skin to sunlight is usually enough to provide a baby's vitamin D requirements, but this does vary from season to season and with skin colour.

Food for young children

Once a child is eating solids, offer a wide range of foods to ensure adequate nutrition. Young children are often picky with food, but should be encouraged to eat a wide variety of foods. Trying again with new foods may be needed for a child to accept that food. As many as eight to fifteen times may be needed.

During childhood, children tend to vary their food intake (spontaneously) to match their growth patterns. Children's food needs vary widely, depending on their growth and their level of physical activity. Like energy needs, a child's needs for protein, vitamins and minerals increase with age.

Ideally, children should be accumulating stores of nutrients in preparation for the rapid growth spurt experienced during adolescence. Appropriate weight gain and development will indicate whether food intake is appropriate.

Food-related problems for young children include overweight, obesity, tooth decay and food sensitivities.

Recommendations include:

- If a child is gaining inappropriate weight for growth, limit energy-dense, nutrient-poor snack foods. Increase your child's physical activity. You could also limit the amount of television watching.
- Tooth decay can be prevented with regular brushing and visits to the dentist. Avoid sugary foods and drinks, especially if sticky or acidic.
- Ensure your child has enough fluids, especially water. Fruit juices should be limited and soft drinks avoided.
- Reduced-fat milks are not recommended for children under the age of two, due to increased energy requirements and high growth rate at this age.
- Be aware of foods that may cause allergic reactions, including peanuts, shellfish and cow's milk. Be particularly careful if there is a family history of food allergy.

Food for children entering their teenage years

The growth spurt as children move into adolescence needs plenty of kilojoules and nutrients. For girls, this generally occurs around 10 to 11 years of age. For boys, it occurs later, at around 12 to 13 years.

Recommendations include:

- The extra energy required for growth and physical activity needs to be obtained from foods that also provide nutrients, instead of just 'empty calories'.
- Takeaway and fast foods need to be balanced with nutrient-dense foods such as wholegrain breads and cereals, fruits, legumes, nuts, vegetables, fish and lean meats.
- Milk, yoghurt and cheese (mostly reduced fat) should be included to boost calcium intake – this is especially important for growing bones. Cheese should preferably be a lower salt variety.
- Adolescent girls should be particularly encouraged to consume milk and milk products.

Older teenagers and young adults

Moving away from home, starting work or study, and the changing lifestyle that accompanies the late teens and early 20s can cause dietary changes that are not always beneficial for good health.

Recommendations include:

- Make a deliberate effort to keep physically active.
- Limit alcohol intake.
- Reduce the amount of fats and salt in the daily diet.
- Be careful to include foods rich in iron and calcium.
- Establish healthy eating habits that will be carried on into later life.

Food for pregnant women

A pregnant woman should concentrate on increasing her nutrient intake, rather than her kilojoule intake, particularly in the first and second trimesters. In Australia, pregnant women are expected to gain about 10 to 13 kg during pregnancy. However, this depends on the pre-pregnancy weight of the mother.

Recommendations include:

- No 'crash dieting', as this can have a negative impact on the baby.
- No 'eating for two', as this will lead to unnecessary weight gain. A healthy pregnancy only requires about an extra 1,400 to 1,900 kilojoules a day during the second and third trimester, which is equivalent to a glass of milk or a sandwich.
- Concentrate on diet quality rather than quantity.
- Accommodate cravings, but don't let them replace more nutritious foods.
- Nutrients for which there are increased requirements during pregnancy include folate, iron, vitamin B12 and iodine.
- Iron is required for oxygen transport in the body. Iron supplements can be advised by your doctor during pregnancy, but do not take them unless your doctor recommends them. Increasing vitamin C intake can help increase iron absorption from foods.
- Folate is important three months before and in the first trimester of pregnancy to avoid neural tube defects (like spina bifida) in the baby. All women of childbearing age should eat high-folate foods (such as green leafy vegetables, fruits and legumes). If planning for pregnancy, it's important to obtain 400 µg folate/ day and if you are pregnant, this increases to 600 µg/day. This can be obtained from a folate supplement and a diet high in folate-rich foods (remember to talk to your doctor first). It is now mandatory for all bread-making flour to be fortified with folic acid (a form of folate that is added to foods). This will help women reach their recommended intake of folate.
- Iodine is important for normal growth and development of the baby. Iodine supplements are often advised during pregnancy to meet the increased needs, as food sources (such as seafood, iodised salt and bread) are unlikely to provide enough iodine. Talk to your doctor about this.
- The recommended intake of calcium does not specifically increase during pregnancy. It is, however, very important that pregnant women do meet calcium requirements during pregnancy.
- No one knows the safe limit of alcohol consumption during pregnancy. Recommendations are to not drink at all.
- Pregnant women are advised to avoid foods that are associated with increased risk of the listeria bacteria (such as soft cheese and cold seafood) and to be careful with foods that are more likely to contain mercury (such as certain fish, such as flake). Listeria can seriously affect your growing baby.
- Being physically active has many benefits. If you are active and fit, and are experiencing a normal pregnancy, you can remain physically active during your pregnancy. Otherwise, consult your doctor for advice.
- Drink plenty of fluids.
- Do not smoke – both direct and passive smoking is associated with growth retardation, increased risk of spontaneous abortion, stillbirths, placental complications and low birth weight.

Food for breastfeeding mothers

Breastfeeding mothers need a significant amount of extra energy to cope with the demands of breastfeeding. This extra energy should come in the form of nutrient-dense foods to help meet the extra nutrient requirements that also occur when breastfeeding. Vegan mothers who are breastfeeding (and during pregnancy) should take a vitamin B₁₂ supplement.

Recommendations include:

- Eat enough food – breastfeeding burns through extra kilojoules.
- Eat foods that are nutrient dense – especially those foods that are rich in folate, iodine, zinc and calcium.
- Eat and drink regularly – breastfeeding may increase the risk of dehydration and cause constipation. fluid needs are approximately 750 – 1000 ml a day above basic needs.
- Women should continue to avoid drinking alcohol while breastfeeding.

Food for menopausal women

Thinning of the bones is common in postmenopausal women because of hormone-related changes.

Recommendations include:

- Eat foods rich in calcium – such as milk or, if necessary, take calcium supplements as prescribed by a doctor.
- Weight-bearing exercises – such as walking or weight training can strengthen bones and help maintain a healthy body weight.
- A high-fibre, low-fat and low-salt diet – a diet high in phytoestrogens has been found to reduce many symptoms of menopause, such as hot flushes. Good food sources include soy products (tofu, soymilk), chickpeas, flax seeds, lentils, cracked wheat and barley.
- A variety of wholegrain, nutrient-dense food – wholegrains, legumes and soy-based foods (such as tofu, soy and linseed cereals), fruits and vegetables, and low-fat dairy products.

Food for older people

Many people eat less as they get older – this can make it harder to make sure your diet has enough variety to include all the nutrition you need.

Recommendations include:

- Be as active as possible to encourage your appetite and maintain muscle mass.
- Remain healthy with well-balanced eating and regular exercise.
- Eat foods that are nutrient dense rather than energy dense, including eggs, lean meats, fish, liver, low-fat dairy foods, nuts and seeds, legumes, fruit and vegetables, wholegrain breads and cereals.
- If possible, try to spend some time outside each day to boost your vitamin D synthesis for healthy bones.
- Limit foods that are high in energy and low in nutrients such as cakes, sweet biscuits and soft drinks.
- Choose foods that are naturally high in fibre to encourage bowel health.
- Limit the use of table salt, especially during cooking.
- Choose from a wide variety of foods and drink adequate fluids.
- Share mealtimes with family and friends.

Where to get help

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

Things to remember

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

- A varied diet that includes plenty of nutrient-dense foods is recommended for everyone, regardless of age.

This page has been produced in consultation with, and approved by:

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