

## Food and your life stages

The nutritional needs of the human body 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
- Daily supplies of water
- Enough kilojoules for energy, with carbohydrates as the preferred source
- 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, whole grains, legumes, dairy foods and lean meats can fulfil these basic requirements.

### **Babies – birth to six months of age**

Infants usually increase their length by 50 per cent and their weight by 300 per cent between birth and one year of age. Breast milk generally supplies a baby with the required amounts of nutrients, fluids and energy up to six months of age. Where possible, breast milk is preferred to formula, as it contains many protective and immunological factors that benefit the baby's development.

Breast milk or correctly prepared infant formula provides enough water for a healthy infant to replace any water losses. However, all infants need extra water when solid foods are introduced.

### **Babies – six to 12 months of age**

Solids should be introduced around six months of age. Different societies have their own traditions about which food is more appropriate to start 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, such as iron enriched infant cereals. 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. Wheat cereals are not recommended as the first food due to their allergy risk.
- Fruits and vegetables should be introduced after the cereals. They are important for vitamin and mineral content and to introduce new textures, tastes and colours.
- Meat, poultry and fish are generally introduced last.
- Don't add salt or sugar to your baby's food.
- Avoid cows milk in the first 12 months.
- Introduce foods one at a time. Offer new foods once every four to five days to avoid confusion and to rule out food allergy and sensitivity.
- Feed babies during illness and feed up after illness. Give ample liquids if your baby has diarrhoea.
- Feed frequently – up to four to six times a day.
- Occasional exposure of the skin to sunlight is usually enough to provide a baby's vitamin D requirements.

### **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 from a wide variety of foods.

During childhood, children tend to vary their food intake (spontaneously) to coincide with 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 total requirements of 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.

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

Recommendations include:

- If a child is putting on too much body fat, limit energy-dense, nutrient-poor snack foods. Increase your child's physical activity. You could also restrict the amount of television watching.
- Tooth decay can be prevented with regular brushing and visits to the dentist. Avoid sugary foods, especially if sticky or acidic.
- Ensure your child has enough fluids, especially milk and water.
- Be aware of foods most likely to cause allergic reactions, including peanuts, shellfish and cows milk. Be particularly careful if there is a family history of food allergy.

### **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.
- Dairy products should be included to boost calcium intake; this is especially important for growing bones.

### **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 conducive to 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.

### **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 10–13kg during pregnancy. However, this depends on the pre-pregnancy weight of the mother.

Recommendations include:

- Don't 'crash diet', as this can have a negative impact on the baby.
- Don't 'eat for two', as this will lead to unnecessary weight gain. A healthy pregnancy only requires about an extra 850–1,100 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 and iodine. Iron supplements are often advised, but don't take them unless your doctor recommends them. Folate is important before and in the early weeks of pregnancy to avoid neural tube defects (like spina bifida) in the baby. All women of childbearing age should eat high folate foods or take a folate supplement (remember to talk to your doctor first).
- 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, so the best approach is not to drink at all.
- 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 are associated with growth retardation, increased risk of spontaneous abortion, stillbirths, placental complications and low birth weight.

### **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 assist in meeting the extra nutrient requirements that also occur when breastfeeding.

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.

### **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.
- **Include a variety of wholegrain, nutrient-dense food** – whole grains, legumes and soy-based foods (such as tofu, soy and linseed cereals), fruits and vegetables, and low fat dairy products.

### **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
- An accredited practising dietitian, contact the Dietitians Association of Australia  
<http://www.daa.asn.au>

### **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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