
Pregnancy and diet

Summary

- If you are pregnant, aim to include the recommended nutrients in your diet, rather than increasing your kilojoule intake.
 - Pregnancy creates extra demands for certain nutrients, including iron and folate.
 - Good food hygiene during pregnancy can help reduce your risk of listeriosis and salmonella.
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Good nutrition during pregnancy can help to keep you and your developing baby healthy. Your need for certain nutrients, such as iron, iodine and folate, increases when you are pregnant.

A varied diet that includes the right amount of healthy foods from the five food groups generally provides our bodies with the vitamins and minerals it needs each day. However, pregnant women may need to take vitamin or mineral supplements during pregnancy (such as folate and vitamin D).

Consult your doctor before taking any supplements. They may recommend that you have a blood test or see a dietitian to review your need to take a supplement.

Healthy weight gain during pregnancy

Steady weight gain during pregnancy is normal and important for the health of the mother and baby. However, it is also important not to gain too much weight. Excess weight gain during pregnancy can increase your risk of a number of health issues including gestational diabetes.

If you are pregnant, a good approach is to eat to satisfy your appetite, and continue to monitor your weight.

Depending on your BMI at the start of your pregnancy, the following weight gain is recommended during pregnancy:

BMI at start of pregnancy (kg/m ²)	Recommended weight gain during pregnancy (kg)
< 18.5 (underweight)	12.5 – 18.0
18.5 – 24.9 (healthy)	11.5 – 16.0
25.0 – 29.9 (overweight)	7.0 – 11.5
> 30 (overweight)	5.0 – 9.0

If you are overweight, pregnancy is not the time to start dieting or trying to lose weight. Weight gain within these ranges is important to support the growth and development of your baby.

To maintain an appropriate weight gain during pregnancy, it is important to:

- choose healthy foods from the five food groups
 - limit discretionary foods and drinks high in saturated fat, added sugars and added salt, such as cakes, biscuits and sugary drinks
 - remain active during your pregnancy.
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Healthy eating for pregnant women

Choose a wide variety of healthy foods from the five food groups during pregnancy to make sure your and your baby's nutritional needs are met. Good nutrition will support the health and growth of your baby. You may find that you need to eat more of some foods to ensure key nutrients are obtained, but there is no need to 'eat for two'.

You can eat well during pregnancy by:

- enjoying a variety of fruits and vegetables of different types and colours. It is recommended that you consume 2 serves of fruit and 5 serves of vegetables every day
- increasing your intake of grain and cereal foods to 8½ serves a day. Choose mostly wholegrain and high fibre options
- choosing foods that are high in iron, such as lean red meat or tofu. Iron-rich foods are important for pregnant women. 3½ serves of meat or meat alternatives are recommended
- making a habit of drinking milk, and eating hard cheese and yoghurt, or calcium-enriched alternatives. Reduced-fat varieties are best. 2½ serves per day are recommended
- drinking plenty of water

Foods and drinks that are high in saturated fat, added sugar and salt are not a necessary part of a healthy diet. Limit your intake of these to small amounts.

The Australian Dietary Guidelines outline what is a healthy diet for pregnant women to make sure they have enough energy and nutrients for themselves and for their growing baby.

Australian Dietary Guidelines serving recommendations for pregnant women, by food group

Food group	Serves per day	Example serving size
Vegetables and legumes/beans	18 years or under: 5 19–50 years: 5	½ cup cooked vegetables ½ cup cooked or canned* beans, peas or lentils 1 cup green leafy or raw salad vegetables ½ cup sweet corn ½ medium potato or other starchy vegetables 1 medium tomato
Fruit	18 years or under: 2 19–50 years: 2	1 medium fruit, such as apple, banana, orange 2 small fruits, such as apricots, kiwi fruits or plums 1 cup diced or canned fruit (no added sugar) Or only occasionally 125 ml (½ cup) fruit juice (no added sugar) 30 g dried fruit (such as 4 apricot halves, 1 ½ tablespoons sultanas)
Grain (cereal) foods, mostly wholegrain and/or high-fibre varieties	18 years or under: 8 19–50 years: 8½	1 slice bread, ½ medium roll or flat bread (40 g) ½ cup cooked rice, pasta, noodles, barley, buckwheat, semolina, polenta, burghul or quinoa ½ cup cooked porridge, 2/3 cup wheat cereal flakes, ¼ cup muesli 3 crispbreads 1 crumpet, small English muffin or scone

Lean meats and poultry, fish, eggs, tofu, nuts and seeds and legumes/beans	18 years or under: 3½ 19–50 years: 3½	65 g cooked lean meats, such as beef, lamb, veal, pork, goat or kangaroo (90–100 g raw) 80 g cooked lean poultry, such as chicken, turkey (100 g raw) 100 g cooked fish fillet (115 g raw) or one small can of fish 2 large eggs 1 cup cooked or canned* legumes/beans, such as lentils, chickpeas or split peas 170 g tofu 30 g nuts or seeds, nut/seed paste*
Milk, yoghurt, cheese and/or alternatives, mostly reduced fat	18 years or under: 3½ 19–50 years: 2½	1 cup (250 ml) fresh, UHT long-life, reconstituted powdered milk or buttermilk ½ cup (120 ml) evaporated milk 2 slices (40 g) hard cheese, such as cheddar ¾ cup (200 g) yoghurt 1 cup (250 ml) soy, rice or other cereal drink, with at least 100 mg of added calcium per 100 ml

*Choose canned foods with no added salt.

Folic acid (folate) and pregnancy

Folate (known as folic acid when added to foods) is a B-group vitamin found in a variety of foods. Folic acid helps protect against neural tube defects in the developing foetus. It is important for pregnant women to make sure they are receiving enough of this important vitamin.

For women who are planning a pregnancy, and during the first three months of pregnancy, a daily folic acid supplement of 500 micrograms is recommended, as well as eating foods that are naturally rich in folate or are fortified with folic acid.

Folate in your diet

Excellent food sources of folate include:

- **asparagus**
- bran flakes
- **broccoli**
- **Brussels sprouts**
- chickpeas
- **dried beans**
- lentils
- **spinach**.

Very good food sources of folate include:

- **cabbage**
- **cauliflower**
- **leeks**
- **oranges**
- orange juice
- **parsley**

- **peas**
- wheat germ
- wholegrain bread.

Good food sources of folate include:

- hazelnuts
- vegemite
- **parsnips**
- **potato**
- salmon
- **strawberries**
- **tomato**
- unsalted peanuts
- walnuts.

Although liver is high in folate, it is **not** recommended for women who are, or could be pregnant, because of its high vitamin A content.

Iron and pregnancy

During pregnancy, a woman's requirement for **iron** increases. This is because the developing foetus draws iron from the mother to last it through the first five or six months after birth.

Iron losses are reduced during pregnancy, because the woman is no longer menstruating. However, this is not enough to offset the needs of the developing foetus. It is important for pregnant women to eat iron-rich foods every day, such as meat, chicken, seafood, dried beans and lentils, and green leafy vegetables.

Animal sources of iron are readily absorbed by the body. Iron from plant sources is not absorbed as easily, but absorption is helped when these foods are eaten together with foods that contain vitamin C (such as oranges). This is important for women who follow a vegetarian diet.

The recommended daily intake (RDI) of iron during pregnancy is 27 mg a day (9 mg a day more than for non-pregnant women). Iron deficiency during pregnancy is common in Australia, and iron supplements may be needed by some women. It is important to discuss your need for supplements with your doctor, as iron can be toxic (poisonous) in large amounts.

Iodine and pregnancy

Iodine is an important mineral needed for the production of thyroid hormone, which is important for growth and development. If you don't have enough iodine intake during pregnancy, it increases your baby's risk of mental impairment and **congenital hypothyroidism** (previously known as cretinism).

Foods that are good sources of iodine include:

- seafood
- seaweed (including nori and kelp)
- eggs
- meat
- dairy products.

Iodised salt also includes iodine. It is important to avoid adding salt at the table or in cooking, but if you do, make sure it is labelled iodised.

Due to the re-emergence of iodine deficiency in Australia, iodised salt is now added to all commercially sold bread in Australia and New Zealand, with the exception of organic and unleavened bread.

Pregnant and breastfeeding women have increased iodine requirements. Iodine supplementation of 150 micrograms per day is recommended for women planning a pregnancy, throughout pregnancy and while breastfeeding.

Vitamin D and pregnancy

Vitamin D is essential for your baby's growth and development and your own health during pregnancy.

We get most of our vitamin D from the sun. Ultraviolet (UV) radiation from the sun produces vitamin D in the skin and is the best natural source of vitamin D. Only a small amount of our vitamin D intake comes from our diet – from foods such as eggs, oily fish, margarine and milks fortified with vitamin D.

Women at most risk of vitamin D deficiency are women who:

- have dark coloured skin
- wear covering or concealing clothing for religious or other reasons
- spend much time indoors.

You may need a blood test at the beginning of your pregnancy to assess your vitamin D levels. If so, your doctor (GP) will arrange this. Depending on your results, you might need to take vitamin D supplements. Your GP will discuss this with you.

If you are considering taking vitamin D or any other supplements during pregnancy, always discuss it with your GP first.

Multivitamin supplements and pregnancy

Multivitamin supplements may be recommended for some groups of pregnant women, including:

- vegans and vegetarians
- teenagers who may have an inadequate food intake
- substance misusers (of drugs, tobacco and alcohol)
- pregnant women who are already very overweight and who are trying to prevent excessive weight gains.

Always be advised by your GP before taking vitamin or mineral supplements.

No need for extra calcium during pregnancy

Until 2006, Australian dietary recommendations advised increased calcium intake during pregnancy and breastfeeding. This advice has since been revised. Although the baby has a high requirement for calcium during the third trimester of pregnancy (as it starts to develop and strengthen its bones), the mother's increased capacity to absorb dietary calcium means that there is no need for extra intake.

The recommended dietary intake for non-pregnant women (1,000 mg a day for women aged 19 to 50 years and 1,300 mg a day for adolescents or those aged over 51) remains unchanged during pregnancy and breastfeeding. Dairy foods (such as milk, cheese and yoghurt) and calcium-fortified soy milk are excellent dietary sources of calcium.

The dangers of dieting while pregnant

Some women fear the extra weight gain of pregnancy and may decide to eat sparingly to avoid putting on body fat. Restricted eating or crash dieting in any form while pregnant can seriously compromise your health and that of your baby, and is not recommended during pregnancy.

Pregnancy in adolescence

Pregnant adolescents need more of some nutrients than adult women, because they are still growing themselves. Adolescents may give birth to smaller infants, because they are competing with the growing foetus for nutrients.

It is important for pregnant adolescents to make sure they are getting enough iron.

Calcium intake is also important, because young women have not yet reached their peak bone mass, and inadequate calcium intake may increase the risk of osteoporosis developing later in life.

Pregnant adolescents should eat around 3½ serves of milk, yoghurt, cheese or calcium-fortified alternatives each day to make sure they are meeting their calcium needs.

Constipation during pregnancy

Constipation is a common occurrence during pregnancy. To help with constipation, enjoy a wide variety of foods that are high in **fibre**, such as vegetables, legumes, fruit and wholegrains and drink plenty of water. Being physically active can also help with reducing constipation.

Nausea and vomiting during pregnancy

Nausea and vomiting, especially '**morning sickness**', are common during pregnancy, particularly in the first trimester.

Some suggestions that may also help include:

- Eat some dry bread, biscuits or cereal before getting up in the morning. Get up slowly, avoiding sudden movements.
- Drink liquids between, rather than with, meals to avoid bloating, as this can trigger vomiting.
- Avoid large meals and greasy, highly spiced foods.
- Suck on something sour like a lemon.
- Relax, rest and get into the fresh air as much as possible. Keep rooms well ventilated and odour free.
- Try food and drinks containing ginger, such as ginger tea, as these sometimes relieve nausea.

Heartburn and pregnancy

Heartburn is common in pregnancy because, as the baby grows, there is more pressure on the abdomen. Small, frequent meals may help, compared to larger meals.

Try to avoid:

- eating late at night
- bending, lifting or lying down after meals
- excessive consumption of tea or coffee.

You may also like to try sleeping with your bedhead raised a little. You can do this by putting a folded blanket or pillow under your mattress.

Alcohol during pregnancy

There is no known safe level of **alcohol consumption for women who are pregnant**. Consuming alcohol during pregnancy increases the risk of miscarriage, low birth weight, congenital deformities and effects on the baby's intelligence.

The *Australian guidelines to reduce health risks from drinking alcohol* recommend that the safest option for pregnant women is not to drink alcohol at all.

If you find it difficult to decrease or stop drinking alcohol during pregnancy talk to:

- your doctor or midwife
- your local community health service
- an alcohol and other drug helpline in your state or territory.

The ***Australian guidelines to reduce health risks from drinking alcohol*** provide more information.

Listeria infection and pregnancy

Listeria infection, or listeriosis, is an illness usually caused by eating food contaminated with bacteria known as *Listeria monocytogenes*. Healthy people may experience no ill-effects from listeria infection at all, but the risks are substantial for pregnant women. The greatest danger is to the unborn baby, with increased risk of miscarriage, stillbirth or premature labour. A listeria infection is easily treated with antibiotics, but prevention is best.

Some foods are more prone to contamination with listeria than others and should be avoided if you are pregnant. They include:

- soft cheeses, such as brie, camembert and ricotta – these are safe if served cooked and hot
- precooked or pre-prepared cold foods that will not be reheated – for example, pre-prepared salads, pâté, quiches and delicatessen meats like ham and salami
- undercooked meat, chilled pre-cooked meats, pâté, meat spread
- raw seafood, such as oysters and sashimi or smoked seafood, such as salmon (canned varieties are safe)
- unpasteurised foods
- pre-prepared or pre-packaged cut fruit and vegetables
- soft-serve ice cream.

The organism that causes listeria infection is destroyed by heat, so properly cooked foods are not a risk.

Salmonella and pregnancy

Salmonella is a cause of food poisoning that can trigger miscarriage. The most likely sources of salmonella are raw eggs and undercooked meat and poultry.

Good food hygiene reduces the risk of infection

Good **food hygiene** is the best way to reduce the risk of salmonella and listeria infections. Suggestions include:

- Always wash your hands before and after preparing food.
- Keep your kitchen surfaces clean.
- Do not let uncooked food contaminate cooked food.
- Wash fruit, vegetables and salad before eating.
- Cook food thoroughly.
- Keep pets away from kitchen surfaces.
- Wear rubber gloves when handling cat litter trays or gardening.
- Store food at correct temperatures.

Mercury in fish

It is suggested that pregnant women eat two to three serves of fish every week for their own good health and that of their developing baby. However, pregnant women or women intending to become pregnant within the next six months should be careful about which fish they eat. Some types of fish contain high levels of mercury, which can be harmful to the developing foetus.

When choosing fish, pregnant women should:

- **limit to one serve (150 g) per fortnight** – billfish (swordfish, broadbill and marlin) and shark (flake), with no other fish eaten in that fortnight
OR
- **limit to one serve (150 g) per week** – orange roughy (deep sea perch) or catfish, with no other fish eaten that week
OR
- **eat two to three serves per week** – of any other fish or seafood (for example, salmon or tuna).

Note: 150 g is equivalent to approximately two frozen crumbed fish portions.

Don't worry if you've had the occasional meal of fish with high levels of mercury. Mercury build-up in the mother's blood is only a potential problem when that type of fish is eaten regularly.

Where to get help

- Your **GP (doctor)**

- **Midwife**
- **Obstetrician**
- **Dietitians Association of Australia** Tel. **1800 812 942**

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