Nutritional requirements during pregnancy

Bringing a new life into this world is an exciting experience and one which requires a close look at good nutrition for both you and your growing baby. Pregnancy places extra nutritional demands on your body. You need more protein and nutrients, particularly iron, folate, iodine, and zinc. Contrary to the old adage “eating for two,” pregnancy doesn’t mean eating twice as much. Surprisingly your energy needs increase only slightly during pregnancy so the focus is eating nutrient rich foods and making sure every mouthful counts. Research has shown that the food a mother eats during pregnancy can affect the development of her baby, and may also affect the baby’s health later in life.

What should I eat?

It is important that you eat a varied diet during pregnancy based on a range of foods from the five food groups. The Australian Guide to Healthy Eating recommendations below aim to ensure that a mother and baby’s energy and nutrient requirements are met.

<table>
<thead>
<tr>
<th>Food group</th>
<th>Serves per day</th>
<th>Sample serves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bread, cereals, rice, pasta, noodles (choose whole grain varieties where possible)</td>
<td>4-6</td>
<td>2 slices bread, 1 medium roll 1 cup cooked pasta or rice 1½ cup cereal</td>
</tr>
<tr>
<td>Vegetables, legumes</td>
<td>5-6</td>
<td>½ cup cooked vegetables 1 small potato 1 cup salad vegetables ½ cup cooked legumes</td>
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<tr>
<td>Fruit</td>
<td>4</td>
<td>1 medium piece fruit (e.g. apple, banana) 1 cup canned fruit 1½ tablespoons dried fruit ½ cup fruit juice</td>
</tr>
<tr>
<td>Milk, cheese, yogurt</td>
<td>3-4</td>
<td>1 cup (250mL) milk 1 tub (200g) yogurt 2 slices (40g) cheese</td>
</tr>
<tr>
<td>Meat, fish, poultry, eggs, nuts, legumes</td>
<td>1½</td>
<td>100g cooked meat 120g cooked fish 2 small eggs ½ cup nuts ½ cup cooked legumes</td>
</tr>
</tbody>
</table>

Specific nutrient requirements

During pregnancy your nutrient requirements increase to support your health and the needs of your growing baby. Particular attention should be given to the following nutrients:

Calcium

Throughout pregnancy and especially during the third trimester, your baby needs calcium to build healthy bones. Fortunately, during pregnancy you absorb calcium more efficiently from your diet, so your growing baby’s needs are met. Recommendations for calcium during pregnancy and breastfeeding are therefore the same as for non-pregnant women (1000mg per day).

The calcium needed by both the mother and baby during pregnancy can be provided by 3 to 4 serves of dairy foods each day. One serve is equal to:
- a glass of milk (250mL)
- a tub of yogurt (200g)
- 2 slices of cheese (40g)

Folate and folic acid

Folate is a B vitamin found naturally in green leafy vegetables, fruit (e.g. citrus, berries and bananas) and legumes. When this vitamin is added to food or used in dietary supplements, it is known as folic acid. Not having enough folate during early pregnancy has been linked to increased risk of neural tube defects such as spina bifida. To reduce the risk of neural tube defects in babies, the National Health and Medical Research Council (NHMRC) recommend that, as well as eating a healthy diet rich in folate, women need an extra 400 micrograms of folic acid a day for at least one month before conception, and for the first three months of pregnancy. This can be achieved by taking a folic acid supplement.

Iron

Your needs for iron increase significantly during pregnancy, particularly during the second and third trimesters when the amount of blood in your body increases and to meet the needs of your placenta and the growing baby. To avoid iron deficiency it is important to eat plenty of iron rich foods. Red meat is one of the richest sources of iron. Chicken, pork and fish contain moderate levels. Smaller amounts of iron can also be found in legumes, green leafy vegetables and iron fortified cereals. Meat provides the most readily absorbed form of iron but eating foods that are rich in vitamin C (e.g. tomatoes and oranges) will help your body absorb iron from plant sources.

Iodine

Iodine is essential to the development of your baby’s brain and nervous system. During pregnancy your iodine requirement increases by 47 per cent and by 80 per cent during breastfeeding. Iodine occurs at low levels in the Australian food supply and varies depending on season and processing practices. Dairy, seafood and fortified bread can be valuable sources however iodine supplementation is recommended during this time to ensure your baby’s demands for growth are met.
Further information on iodine supplementation can be found on the NHMRC website (www.nhmrc.gov.au).

Zinc
Zinc is essential for normal growth and development in bones, the brain and many other parts of the body. It is widely available from a variety of foods making it possible for pregnant women to achieve their zinc needs through diet alone. Zinc is most easily absorbed from animal sources such as red meat, fish and dairy and to a lesser extent plant sources including nuts, legumes and cereals.

Protein
More protein is needed during pregnancy to support your baby’s growth and changes in your own body such as increased breast tissue. In general, a healthy balanced diet will provide enough protein to meet your needs during pregnancy.

Common discomforts experienced during pregnancy

Nausea and vomiting
While a healthy diet is important, if you are suffering from nausea and vomiting or ‘morning sickness’ it’s more important to eat what you can keep down in the first few weeks. If you’re taking a pregnancy supplement, take it each day at a time when you feel less ill. The following tips may also help:

- Eat small amounts often. Carbohydrate-rich snacks are a good option e.g. cheese and crackers, toast, cereal or fruit.
- Drink plenty of fluids outside of mealtimes
- Minimise odours while cooking (exhaust fan, open window)
- Avoid fatty or spicy foods
- Keep dry crackers at your bedside to eat before getting up in the morning.

Heartburn
Heartburn is most commonly experienced in the third trimester as a result of your baby’s increasing size along with a slowing of the passage of food through the intestine.

- Eat small amounts often
- Stay upright after eating
- Drink fluids outside of mealtimes
- Avoid acidic, fatty or spicy foods
- Milk and yogurt may help to relieve symptoms.

Constipation
Constipation may occur later in pregnancy and can be assisted by:

- Eating high-fibre foods such as wholegrains, fruit and vegetables
- Drinking plenty of fluids
- Gentle physical activity.

Enjoy dairy safely
Dairy foods are a valuable source of calcium and other essential nutrients to be enjoyed by pregnant women. It is important that fresh dairy products (including milk, cheese and yoghurt) are stored below 4°C in the fridge or freezer. All dairy products that are shelf stable i.e. bought at room temperature (e.g. UHT milk, cheese sticks or milk powder) must be stored below 4°C once opened or made up, and used within a couple of days. Always check the product label for the correct storage advice.

Listeria
Listeria is a bacteria that contaminates food which can cause an infection called listeriosis. It can be a serious illness for pregnant women, possibly causing miscarriage if it is transmitted to the unborn baby.

Some foods are more susceptible to contamination by Listeria, which can grow at refrigeration temperature. During pregnancy it is recommended you avoid:

- Soft, semi-soft and surface ripened cheeses (e.g. brie, camembert, ricotta, feta and blue cheese); (Note: soft cheeses are considered safe if they are cooked above 65°C and served hot e.g. ricotta and spinach cannelloni, cheese topping on pizza.)
- Soft serve ice cream;

Unpasteurised dairy foods (Note: almost all dairy foods produced in Australia must be pasteurised, however some specialty imported cheeses may be unpasteurised. It is advised to check the label).

The following dairy foods are considered safer options:

- Pasteurised dairy products such as milk and yoghurt;
- Hard cheeses such as cheddar or tasty cheese
- Processed cheese, cheese spreads, plain cream cheese, plain cottage cheese (only purchase cheeses packaged by the manufacturer); and
- Packaged frozen ice cream.

Further information on Listeria and food safety during pregnancy can be found on the Food Standards Australia New Zealand website (www.foodstandards.gov.au).

Have a healthy pregnancy!
Choosing a safe and healthy diet during pregnancy is beneficial to you and your baby. A varied diet including the five food groups with plenty of fruit and vegetables and 3 serves of dairy foods every day can help provide the essential nutrients needed at this special time of life. For personalised dietary advice consult your doctor or dietitian.