

# FOOD SAFETY DURING PREGNANCY



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# A healthy diet

Both you and your growing baby need extra nutrients, and the best way to get them is to eat a wide variety of nutritious foods and be as healthy as possible as early as possible in your pregnancy.



## **These foods should include a variety of**

- Bread, cereals, rice, pasta, noodles and other grain foods – mostly wholegrain and/or high fibre
- Vegetables and legumes
- Fruit
- Meat, fish, poultry, cooked eggs, nuts, seeds and tofu
- Milk, yoghurt, hard cheese and dairy alternatives with added calcium – mostly reduced fat

The *Australian Dietary Guidelines* by the Commonwealth Department of Health and the National Health and Medical Research Council (NHMRC) recommends the below food group intakes for pregnant women:

FOOD GROUP	TRY TO CONSUME EACH DAY	EXAMPLES OF 1 SERVING =
<b>GRAIN FOODS</b> (including breads, cereals, rice, pasta, noodles)	<b>8½ servings*</b> (mostly wholegrain and/or high fibre)	1 slice of bread ½ medium bread roll or flat bread ¾ cup of wheat cereal flakes ½ cup of cooked rice, pasta, noodles, cous cous or quinoa
<b>VEGETABLES &amp; LEGUMES</b>	<b>5 servings</b>	½ cup of cooked green or orange vegetables 1 cup of green leafy or raw salad vegetables ½ cup of cooked, dried or canned beans, peas or lentils ½ medium starchy vegetable (potato, sweet potato or taro)
<b>FRUIT</b>	<b>2 servings</b>	1 medium apple or banana 2 small fruits (apricots, kiwi fruit or plums) 1 cup of diced or canned fruit (no added sugar)
<b>PROTEIN</b> (meat, fish, poultry, cooked eggs, nuts, seeds, tofu)	<b>3½ servings</b>	90-100g raw weight of cooked meat (beef, lamb, pork) 100g raw weight of cooked lean poultry (chicken or turkey) 115g raw weight of cooked fish fillet or one small can of fish 30g of nuts, seeds or peanut butter 2 large eggs 170g of tofu
<b>CALCIUM</b> (milk, yoghurt, hard cheese and dairy alternatives)	<b>2½ servings**</b> (mostly reduced fat)	250ml of milk (1 cup) 250ml of soy, rice or other cereal drink fortified with at least 100mg per 100ml calcium 40g (2 slices) of hard cheese 200g of yoghurt

\*8 serves per day for women 18 years or under

\*\*3½ serves per day for women 18 years or under

Weight gain during pregnancy varies between women. It is important to keep an eye on your weight, but don't diet or skip meals while you're pregnant. Your baby grows every day and needs you to maintain a balanced, healthy diet. If you are concerned about your weight, talk to your doctor or an accredited, practising dietician.

# Vitamins, nutrients and minerals

During pregnancy your body needs extra vitamins, minerals and nutrients to help your baby develop. The best way of getting most of these vitamins is though your diet.

It is important to talk to your doctor or an accredited, practising dietician before taking supplements. Some supplements (eg too much vitamin A) can be a risk to the baby.



## Folate

Folate is a B vitamin and is added to food or supplements as folic acid. Folate is important for your baby's development during early pregnancy because it helps prevent birth abnormalities like spina bifida.

The best way to make sure you get enough folate is to take a daily folic acid supplement of at least 400 micrograms ( $\mu\text{g}$ ) one month before becoming pregnant and during the first three months of pregnancy. If you have a family history of neural tube defects you may need even more folate, so you should consult your doctor.

It is also important to eat foods that have added folic acid or are naturally rich in folate. Foods with folic acid added to them (fortified) include most breads, some breakfast cereals, and fruit juices. Check the nutrition information panel on the package to find out how much folate is present.

Foods naturally rich in folate include green leafy vegetables such as spinach and salad greens, broccoli, chickpeas, nuts, orange juice, some fruits and dried beans and peas.



## Iron

Pregnancy increases your need for iron. Your baby draws enough iron from you to last it through the first five or six months after birth so it's vital that you consume more iron while pregnant. The recommended daily intake (RDI) of iron during pregnancy is 27mg per day. Taking a supplement may help to meet this recommended intake but you should only take iron supplements under your doctor's advice.

### Iron-rich foods

- Lean beef and lamb
- Poultry
- Fish
- Breakfast cereals fortified with iron
- Eggs
- Cooked legumes such as chickpeas, lentils, kidney and lima beans
- Dried fruits
- Green vegetables such as broccoli, cabbage and spinach

Eating foods high in vitamin C may also help you to absorb iron if you consume them at the same time. Try drinking some orange juice when eating green vegetables or legumes. You also need to watch out for tea, coffee and cola because caffeine reduces the body's absorption of iron.



## Calcium

Calcium is essential to keep bones healthy and strong. During the third trimester of pregnancy, your baby needs a large amount of calcium as they start to develop and strengthen their bones. If you're not getting enough calcium in your diet, the calcium needed by your baby will be drawn from your own bones. To prevent this and the risk of osteoporosis later in life make sure you are getting enough calcium in your diet for both of you.

The recommended daily intake of calcium during pregnancy is 1000mg to 1300mg per day. Two and a half serves of dairy foods, such as milk, hard cheese, yoghurt or calcium fortified soy milk, should meet your daily requirements. Pregnant women who are 18 years or under should aim to consume three and a half serves per day.

## Iodine

Iodine is important for everyone, but particularly for pregnant and breastfeeding women. Mild to moderate iodine deficiency during pregnancy can result in the baby having learning difficulties and affect the development of motor skills and hearing.

In Australia, most breads, except organic varieties, are fortified with iodine which will help to address the iodine needs of most of the population. However, pregnant and breastfeeding women have higher requirements for iodine so some women may need to take a supplement. Talk to a doctor, midwife or accredited, practising dietitian for advice.



If you think you are not getting enough vitamins or nutrients please speak to your doctor.

# Food poisoning

When you're pregnant, hormonal changes in your body lower your immune system which can make it harder to fight off illness and infection. Preventing foodborne illness and protecting yourself from other food risks during pregnancy is extremely important.

## ***Salmonella***

*Salmonella* can cause nausea, vomiting, abdominal cramps, diarrhoea, fever and headache. Pregnant women are not at an increased risk of contracting salmonellosis, but in rare cases it may trigger miscarriage.

It's advisable to avoid foods that contain raw egg and always cook meat, chicken and eggs thoroughly. In addition, the NSW Food Authority recommends that pregnant women do not eat any type of sprout including alfalfa sprouts, broccoli sprouts, onion sprouts, sunflower sprouts, clover sprouts, radish sprouts, snowpea sprouts, mung beans and soybean sprouts, whether raw or lightly cooked.

## ***Listeria***

*Listeria* is a type of bacteria found in some foods which can cause a rare but dangerous infection called listeriosis. If *Listeria* is transmitted to your unborn baby it can lead to miscarriage, premature labour, or stillbirth.

Some foods may contain *Listeria* even when they've been stored correctly so the best way to avoid listeriosis is to follow these guidelines:

- Try to eat only freshly cooked food and well washed, freshly prepared fruit and vegetables. Leftovers can be eaten if they were refrigerated promptly and kept no longer than a day
- Avoid any foods that may have been made more than a day in advance, for example pre-made and pre-packaged salads, sandwiches and wraps
- Refer to the *Safer eating during pregnancy* tables (insert at back) for guidance on what foods to avoid during pregnancy.

# Other food risks



## Toxoplasmosis

Toxoplasmosis, while uncommon in pregnant women, can occur if you eat undercooked meats, or unwashed fruit and vegetables, particularly from gardens with household cats. Most commonly, however, infection is caused by touching cat faeces when cleaning the cat litter tray or contaminated soil in the garden. It is particularly important to avoid toxoplasmosis during pregnancy because it can lead to brain damage or blindness in your unborn child.

### Tips for avoiding toxoplasmosis

- Don't eat undercooked or raw meat
- Don't eat raw oysters, clams or mussels
- Don't drink unpasteurised goat's milk
- Always thoroughly wash fruit and vegetables
- Always wear gardening gloves when gardening
- Always wash your hands after touching animals, especially cats
- Avoid handling cat litter or animal faeces where possible (if necessary, wear gloves)
- If swimming in a lake or river, avoid swallowing the water
- If travelling overseas, avoid tap water





## Eating fish safely

Fish are rich in protein and minerals, low in saturated fat, and contain omega-3 fatty acids. Omega-3 fatty acids are important for the development of the central nervous system in babies, before and after they are born.

Although it's really important to eat fish during pregnancy and breastfeeding, you need to be careful about which fish you choose. That's because some fish may contain mercury levels that may harm an unborn baby or young child's developing nervous system.

The following table will help you safely include fish as an important part of a balanced diet.

<b>PREGNANT &amp; BREASTFEEDING WOMEN &amp; WOMEN PLANNING PREGNANCY</b>	<b>CHILDREN UP TO 6 YEARS</b>
<b>1 serve equals 150g</b>	<b>1 serve equals 75g</b>
<b>EAT 2-3 SERVES PER WEEK OF ANY FISH AND SEAFOOD NOT LISTED BELOW</b>	
OR	
<b>EAT 1 SERVE PER WEEK OF THESE, AND NO OTHER FISH:</b> Catfish or Orange Roughy (Deep Sea Perch)	
OR	
<b>EAT 1 SERVE PER FORTNIGHT OF THESE, AND NO OTHER FISH:</b> Shark (Flake) or Billfish (Broadbill, Swordfish and Marlin)	

Source: Food Standards Australia New Zealand, 2011

# GOLDEN RULES OF FOOD SAFETY



## Keep it cold

- Keep the fridge below 5°C
- Put any food that needs to be kept cold in the fridge straight away
- Don't eat food that's meant to be in the fridge if it's been left out for two hours or more
- Defrost and marinate food in the fridge, especially meats
- Shop with a cooler bag, picnic with an esky



## Keep it hot

- Cook foods to at least 60°C, hotter for specific foods (see tables on insert at back)
- Reheat foods to at least 60°C, until they're steaming hot
- Make sure there's no pink left in cooked meats such as mince or sausages
- Look for clear juices before eating freshly cooked chicken or pork
- Heat to boiling all marinades containing raw meat juices before serving
- The best way to know if food is hot enough is to use a good quality, accurate food thermometer



## Keep it clean

- Wash and dry hands thoroughly before starting to prepare or eat any food, even a snack
- Keep benches, kitchen equipment and tableware clean
- Separate raw and cooked food and use different cutting boards and knives for both
- Don't let raw meat juices drip onto other foods
- Avoid eating food made by someone sick with something like diarrhoea



## Check the label

- Don't eat food past the 'use-by' date
- Note the 'best before' date
- Follow storage and cooking instructions
- Ask for information about unpackaged foods

# Also watch out for...

## Alcohol

Drinking alcohol during pregnancy can lead to miscarriage, stillbirth, premature birth or your baby could be born with foetal alcohol syndrome (impaired growth before and after birth, and mental disabilities). As it is not known whether there is a safe level of drinking during pregnancy, the National Health and Medical Research Council advises women that the safest option is not to drink if you are pregnant, planning to get pregnant or breastfeeding.

## Caffeine

Small amounts of caffeine are safe during pregnancy but excessive volumes may increase the risk of miscarriage and premature birth. Caffeine is in coffee, tea, chocolate and cola (and some other soft drinks and energy drinks). NSW Health recommends that pregnant women limit themselves to 200mg of caffeine daily. That amount would be obtained from about 1-2 cups of espresso style coffee, 3 cups of instant coffee, 4 cups of medium strength tea, or 4 cups of cocoa or hot chocolate. Avoid double shots of espresso coffee and drinks marked as sports or energy drinks that contain caffeine.

## Smoking

Smoking is dangerous for your baby. Smoking increases the risk of premature birth, low birth weight, respiratory problems and SIDS. There is no safe level of smoking. For help to quit smoking call NSW Quitline on 13 7848 (13 QUIT).

## Baby bone broth / DIY infant formula

Recipes classed as 'baby bone broth' or 'DIY infant formula' for infant feeding are increasingly available online. These may carry significant food safety and nutrition risks and the NSW Food Authority advises against their use.

# Safer eating during pregnancy

## MEAT, POULTRY & SEAFOOD

Food	Form	What to do
<b>PROCESSED MEAT (DELI)</b>	Ham, salami, luncheon, chicken meat etc	<b>DON'T EAT unless thoroughly cooked to at least 75°C and eaten soon afterwards</b>
<b>RAW MEAT</b>	Any raw meat, raw chicken other poultry, beef, pork etc	<b>DON'T EAT</b>
<b>POULTRY</b>	Cold chicken or turkey, eg. used in sandwich bars	<b>DON'T EAT</b>
	Hot takeaway chicken	Purchase freshly cooked and eat while hot. Store leftovers in fridge to reheat to at least 60°C, and use within a day of cooking
	Home-cooked	Ensure chicken is cooked thoroughly to at least 74°C and eat while hot. Store any leftovers in fridge to reheat to at least 60°C and use within a day of cooking
<b>PÂTE</b>	Refrigerated pâte or meat spreads	<b>DON'T EAT</b>
<b>SEAFOOD</b>	Raw seafood	<b>DON'T EAT</b>
	Ready-to-eat chilled peeled prawns	<b>DON'T EAT</b>
	Cooked fish and seafood (see section 'Eating fish safely' on page 9 for women who are pregnant, breastfeeding or planning a pregnancy, or for children under 6 years)	Cook thoroughly to at least 63°C and eat while hot. Store leftovers in the fridge to reheat to at least 60°C and use within a day of cooking
<b>SUSHI</b>	Store-bought	<b>DON'T EAT</b>
	Home-made	<b>Don't use raw meat or seafood, eat immediately</b>
<b>COOKED MEATS</b>	Beef, pork, chicken, mince	<b>Cook thoroughly to at least 71°C (medium), eat while hot</b>

## OTHER FOODS

Food	Form	What to do
<b>LEFTOVERS</b>	Cooked foods	Store leftovers covered in the fridge, eat within a day and always reheat to at least 60°C
<b>CANNED FOODS</b>	Tinned fruit, vegetables, fish etc	Store unused portions in the fridge in clean, sealed containers and use within a day
<b>STUFFING</b>	Stuffing from chicken or poultry	<b>DON'T EAT unless cooked separately and eat hot</b>
<b>HOMMUS &amp; OTHER DIPS CONTAINING TAHINI</b>	Store-bought or home-made	<b>DON'T EAT</b>
<b>SOY</b>	All soy products, eg tofu, soy milk, soy yoghurt etc	Check 'best before' or 'use-by' date. Follow storage instructions
<b>SANDWICHES</b>	Pre-prepared or pre-packaged sandwiches or wraps	<b>DON'T EAT</b>

## DAIRY & EGGS

Food	Form	What to do
<b>CHEESE</b>	Soft and semi-soft cheese, eg brie, camembert, ricotta, fetta, bocconcini and blue	<b>DON'T EAT unless thoroughly cooked to at least 75°C and eaten soon afterwards</b>
	Processed cheese, cheese spreads, cottage cheese, cream cheese etc	Store in the fridge, eat within two days of opening pack
	Hard cheese, eg cheddar, tasty cheese	Store in the fridge
<b>ICE-CREAM</b>	Soft serve	<b>DON'T EAT</b>
	Fried ice-cream	<b>DON'T EAT</b>
	Packaged frozen ice-cream	Keep and eat frozen
<b>DAIRY</b>	Unpasteurised (raw)	<b>DON'T DRINK OR USE</b>
	Pasteurised, eg milk, cream, yoghurt	Check 'best before' or 'use-by' date. Follow storage instructions
<b>CUSTARD</b>	Store-bought	Can be eaten cold if freshly opened. Store in fridge to reheat to at least 60°C and use within a day of opening. Check 'best before' or 'use-by' date
	Home-made	Cook thoroughly to at least 71°C and eat while hot. Store in fridge. Always reheat to at least 60°C and use within a day of making
<b>EGGS</b>	Cooked egg dishes, eg fried eggs, scrambled eggs, quiche	Cook thoroughly to at least 71°C. Don't use cracked or dirty eggs
	Raw egg in food, eg home-made mayonnaise, aioli, chocolate mousse, cake batter, pancake batter	<b>DON'T EAT</b>
	In non-refrigerated commercial products, eg mayonnaise, aioli	Check 'best before' or 'use-by' date. Follow storage instructions

## FRUIT & VEGETABLES

Food	Form	What to do
<b>SALADS</b>	Pre-prepared or pre-packaged salads including fruit salad, eg from salad bars, smorgasbords	<b>DON'T EAT</b>
	Home-made	Wash salad ingredients well just before making and eating salads, store any leftover salads in fridge and use within a day of preparation
<b>FRUIT</b>	Rockmelons	<b>DON'T EAT</b>
	Whole fresh fruits	Wash well before eating
<b>VEGETABLES &amp; HERBS</b>	Fresh vegetables and herbs	Wash well just before eating raw or wash before cooking
	Frozen vegetables	Cook, don't eat uncooked
<b>BEAN SPROUTS</b>	Alfalfa sprouts, broccoli sprouts, onion sprouts, sunflower sprouts, clover sprouts, radish sprouts, snowpea sprouts, mung beans and soybean sprouts	<b>DON'T EAT raw or lightly cooked</b>



The NSW Food Authority is the government organisation that helps to ensure food in NSW is safe and correctly labelled.

It works with consumers, industry and other government organisations to minimise food poisoning by providing information about and regulating the safe production, storage, transport, preparation and sale of food.

## **FOOD SAFETY DURING PREGNANCY**

### **NSW Food Authority**

[foodauthority.nsw.gov.au/foodsafetyandyou/life-events-and-food/pregnancy](http://foodauthority.nsw.gov.au/foodsafetyandyou/life-events-and-food/pregnancy)

### **Food Standards Australia New Zealand (FSANZ)**

[foodstandards.gov.au/consumer/generalissues/pregnancy](http://foodstandards.gov.au/consumer/generalissues/pregnancy)

## **PREGNANCY CARE**

### **NSW Health**

[health.nsw.gov.au/kidsfamilies/MCFhealth/Pages/having-a-baby.aspx](http://health.nsw.gov.au/kidsfamilies/MCFhealth/Pages/having-a-baby.aspx)

### **Australian Dietary Guidelines**

[eatforhealth.gov.au](http://eatforhealth.gov.au)

## **For further information and advice**

Visit [foodauthority.nsw.gov.au](http://foodauthority.nsw.gov.au) or call 1300 552 406



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