

## Healthy eating and weight gain during pregnancy

### Healthy eating for pregnancy

Healthy eating is important at all stages of life, especially during pregnancy. What you eat and drink at this time can affect your health and the health of your baby for many years to come.

There is only a *small* increase in the *amount of food* you need to eat while you are pregnant. However, you do need more of certain nutrients, so it is important that you make food choices so you and your baby get all you need for healthy growth and a healthy pregnancy.

Your daily food group requirements during pregnancy are outlined in the table on the next page. Use the numbers in the middle column to guide how many serves to eat from each food group per day. One serve is equal to each of the foods in the column on the right. For example, one serve of fruit is equal to 2 small plums, one serve of grain (cereal) foods is equal to ½ cup of cooked pasta.

### What's in this handout?

- Healthy eating for pregnancy – essential nutrients I need and how I get them
- A sample meal plan to show you how this all fits together
- Managing healthy weight gain in pregnancy
- Food safety, including listeria
- Managing food related side effects, like constipation, heartburn, and morning sickness
- Being active during pregnancy
- Breastfeeding

**For further information contact your Dietitian or Nutritionist:** \_\_\_\_\_

Food Group	Number of Serves per day (19-50 years)	1 serve equals...
<b>Vegetables and legumes/ beans</b>	5	<p>½ cup cooked non starchy vegetables (e.g. broccoli, carrot, pumpkin or spinach)</p> <p>½ cup cooked, dried or canned beans, chickpeas or lentils (no added salt)</p> <p>1 cup raw salad vegetables</p> <p>½ medium potato, or other starchy vegetable (sweet potato, taro, or cassava)</p> <p>½ cup sweet corn</p>
<b>Fruit</b>	2	<p>1 medium sized fruit (e.g. apple, banana, orange, pear)</p> <p>2 pieces small fruit (e.g. apricot, kiwi fruit, plums)</p> <p>1 cup diced, cooked or canned fruit</p> <p>½ cup 100% juice</p> <p>30 g dried fruit (e.g. 1½ tablespoons sultanas, 4 dried apricot halves)</p>
<b>Grain (cereal) foods, mostly wholegrain,</b>	8½	<p>1 slice of bread</p> <p>½ medium bread roll or flat bread</p> <p>½ cup cooked rice, pasta, noodles, polenta, quinoa, barley, porridge, buckwheat, semolina, cornmeal</p> <p>⅔ cup breakfast cereal flakes</p> <p>¼ cup muesli or rolled oats</p> <p>3 (35g) crispbreads</p> <p>1 crumpet or 1 small English muffin or scone</p>
<b>Lean meat and poultry, fish, eggs, nuts and seeds, and legumes/beans</b>	3½	<p>65 g cooked lean red meats (e.g. beef, lamb, pork, venison or kangaroo) or ½ cup lean mince, 2 small chops, 2 slices roast meat</p> <p>80 g cooked poultry (e.g. chicken, turkey)</p> <p>100 g cooked fish fillet or 1 small can fish, no added salt, not in brine</p> <p>2 large eggs (120 g)</p> <p>1 cup (170 g) cooked dried/canned beans, lentils, chickpeas, split peas, canned beans</p> <p>170 g tofu</p> <p>⅓ cup (30 g) unsalted nuts, seeds, no added salt or 2 tablespoons nut paste, no added salt</p>
<b>Milk, yogurt, cheese and/or alternatives (mostly reduced fat)</b>	2½	<p>1 cup (250 ml) milk</p> <p>40 g (2 slices) hard cheese (e.g. cheddar)</p> <p>120 g ricotta cheese</p> <p>200 g yoghurt</p>
<b>Additional serves for taller or more active women</b>	0–2½	<p><i>Additional serves from the five food groups or</i></p> <p>2-3 dry/plain biscuits</p> <p>30 g potato crisps</p> <p>2 scoops ice cream</p> <p>1 tablespoon (20 g) oil/butter/margarine</p>

### **Folate or folic acid during pregnancy**

Folate (or folic acid) is needed for your baby to grow and develop. It is especially important in the month before you fall pregnant and the first trimester (three months) of pregnancy. A good intake of folate reduces the risks of your baby being born with conditions such as spina bifida.

All women planning a pregnancy and in the early stages of pregnancy should take a folic acid supplement of at least 400mcg (micrograms) per day. Women who have diabetes or are overweight (with a BMI > 30 kg/m<sup>2</sup>) should take a higher dose of folic acid of 5mg (milligrams) per day.

You should also eat a variety of folate-containing foods. Foods high in folate include green leafy vegetables such as broccoli, spinach, bok choy, and salad greens, some fruits, and cereals and breads with added folic acid.

### **Iodine**

Adequate iodine in pregnancy is needed for your baby's growth and brain development. Your body needs more iodine during pregnancy. All women who are pregnant, breastfeeding or

considering pregnancy, should take a supplement of 150mcg (micrograms) of iodine. You still need to consume foods that are high in iodine. These include freshly cooked and consumed seafood, bread with added iodine, eggs and dairy.

Do not take kelp (seaweed) supplements or kelp based products due to varying amounts of iodine and risk of heavy metals such as mercury.

### **Iron during pregnancy**

Iron is needed to form red blood cells for you and your baby. It helps carry oxygen in your blood and is needed for your baby to grow. During pregnancy you need a lot more iron than when you are not pregnant.

It is best to get the iron you need from your diet. The best sources of iron are lean meats (especially red meat), some vegetables (especially green leafy ones), legumes, and cereals with added iron. Iron from animal food sources is absorbed more easily than iron from plant foods.

Some foods and drinks may stop your body using iron from your diet. To reduce this, avoid:

- Drinking tea or coffee with meals
- Taking your iron supplement with a meal that includes dairy
- Eating more than 2 tablespoons of unprocessed bran.

You can help your body absorb iron from the food you eat or drink by:

- Including vitamin C with meals (e.g. citrus foods, tomato, capsicum)
- Including animal protein with green leafy vegetables at a meal
- Using antacids sparingly

### **Multivitamin supplements**

A multivitamin during pregnancy is *not necessary* unless you do not have a balanced diet – compare what you are eating with the food group table in this handout to check the quality of your diet.

Supplements needed in pregnancy:

- folic acid supplement (important during first trimester)
- iodine (during pregnancy and breastfeeding).
- iron, only if your iron levels are low.

*You may choose to get these nutrients from individual tablets or from a multivitamin.* If you DO take a vitamin or mineral supplement during pregnancy, choose one that is specifically designed for pregnancy. Always check with your doctor before taking any supplements as high doses can be harmful and reduce the absorption of other nutrients.

### **Herbal supplements and preparations**

Many herbal preparations have a drug-like effect. These should be used with the same caution as with other drugs. Please call the National Prescribing Service Medicines line for any information regarding alternative treatments in pregnancy on 1300 633 424.

### **Eating fish during pregnancy**

Fish is a safe and an important part of healthy eating. It is an excellent source of protein, is low in saturated fat, high in omega 3 fish oils and a good source of iodine. Omega 3 oils are important for growth of your baby's brain and eye development.

It is important to eat fish when you are pregnant but you need to be careful about the fish you choose. Some fish may accumulate mercury, which may be

harmful to your baby's developing nervous system. Food Standards Australia New Zealand has set the following safe guidelines for fish intake.

#### Fish serves per week

Pregnant women and women planning pregnancy (1 serve = 150 g)
1 serve per <i>fortnight</i> of shark (flake) or billfish (swordfish/broadbill and marlin) and NO other fish that fortnight
<b>OR</b>
1 serve per <i>week</i> of Orange Roughy (Deep Sea Perch) or catfish and NO other fish that week
<b>OR</b>
2–3 serves per week of any other fish and seafood not listed above ( <i>this is 4 – 5 small 90g tins of salmon/tuna per week</i> )

### Caffeine

Limit drinks containing caffeine during pregnancy. Cola drinks, Mountain Dew soft drink, tea, coffee, chocolate, chocolate flavoured beverages, cocoa and energy drinks all contain caffeine. It is best to not have more than two or three of these food and drinks per day.

The table below lists the caffeine content of some common foods and drinks.

Food	Caffeine content
Coffee	60-120mg/250ml cup
Energy drinks	80mg/250mL can
Instant coffee	60-80mg/250mL cup
Tea	10-50mg/250mL cup
Coca Cola	50mg/375mL can
Milk chocolate	20mg/100g bar

### Alcohol

There is no known safe level of alcohol intake during pregnancy. Alcohol crosses the placenta and can lead to physical, growth and mental problems in some babies. It is recommended to avoid all alcohol during your pregnancy.

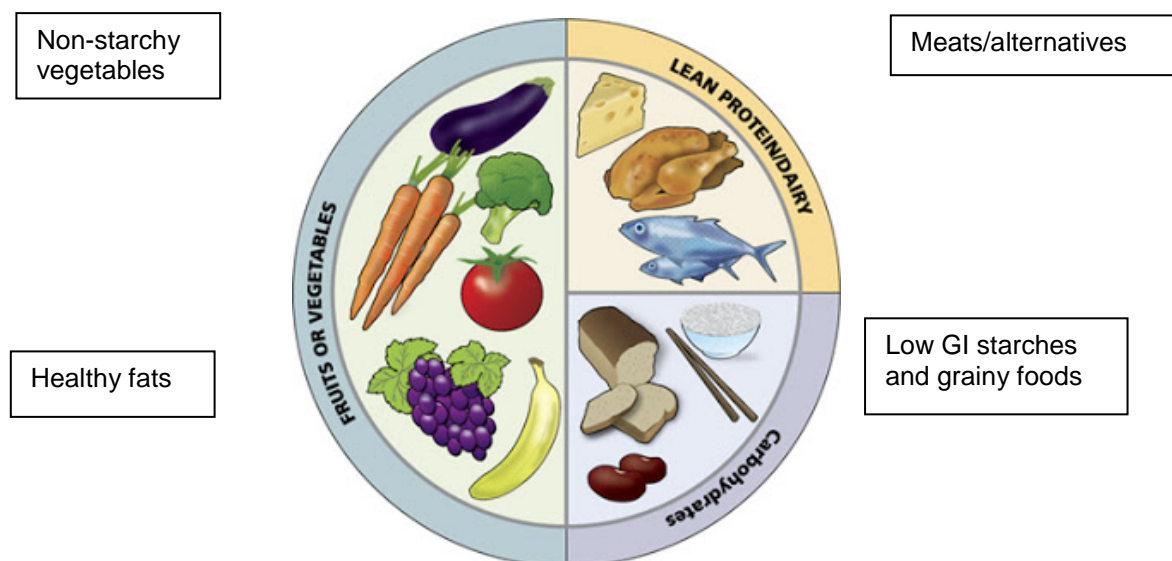


## Sample meal plan

This meal plan provides a general guide to eat all the foods you may need during pregnancy. A dietitian can change this guide to suit your individual needs.

BREAKFAST	2 slices of toasted multigrain/wholegrain bread 1 large poached egg Mushrooms & tomato
MORNING TEA	200g low fat yoghurt ½ cup muesli
LUNCH	100g tuna & salad on multigrain roll 1 medium piece fresh fruit
AFTERNOON TEA	2 slices of cheese on 4 crisp-breads 1 cup fresh fruit salad
DINNER	130g roast lamb 1 ½ cups cooked mixed vegetables 1 medium potato
SUPPER	1 cup reduced fat milk 1 slice raisin toast

## The Healthy Plate Model



Things I can do to improve my diet for a healthy pregnancy:

1.

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2.

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3.

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### Healthy weight gain

Keeping track of your weight is important for your and your baby's health. You should *balance* your *nutritional needs* with *healthy weight gain* and *eating to appetite*.

Not enough weight gain can increase the risk of preterm birth and cause problems later in life. Women who are overweight or gain too much weight during pregnancy have a higher risk of:

- High blood pressure
- Gestational diabetes
- A large baby (macrosomia)
- Caesarean sections
- Birth defects
- Difficulty losing weight after their baby is born.

This can also increase your long-term risk of diabetes, heart disease and some cancers.

### How much weight should I gain?

The weight you should aim to gain depends on what your weight (and body mass index or BMI) was *before* you became pregnant. BMI is the number used to work out the recommended amount for you. Your BMI may be in your handheld record from antenatal clinic. If not, you can work it out using the steps in the box overleaf.

Use this table as a general guide to what you should gain during pregnancy.

If your <i>pre-pregnancy BMI</i> was...	You should gain...
Less than 18.5 kg/m <sup>2</sup>	12½ to 18kg
18.5 to 24.9 kg/m <sup>2</sup>	11½ to 16kg
25 to 29.9 kg/m <sup>2</sup>	7 to 11½ kg
Above 30 kg/m <sup>2</sup>	5 to 9kg

### How do I work out my BMI?

1. My pre-pregnancy weight: \_\_\_\_\_ kg

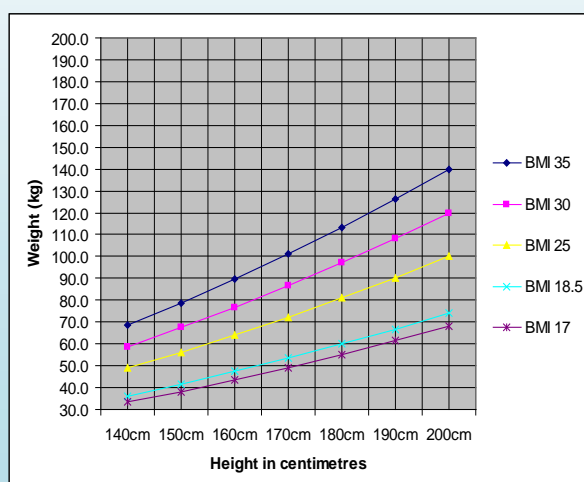
My height: \_\_\_\_\_ m

(e.g. 165cm would be 1.65m)

BMI = weight/(height x height) =

\_\_\_\_\_ kg/m<sup>2</sup>

2. Another way to find your BMI is to use the graph below. From your height and weight trace your fingers along the lines until they meet. That is your BMI. Your dietitian or midwife could help if you are unsure of how to do this.



### Trimester by trimester weight gain

As well as having an overall weight gain goal for your pregnancy, there is a trimester-by-trimester guideline to follow.

### How much should I gain in my first trimester?

All women can expect to gain one or two kilograms in the first trimester.

### How much should I gain in my second and third trimesters?

This depends on your *pre-pregnancy BMI*. Refer to the table below to see your goal.

If your <i>pre-pregnancy BMI</i> was...	You should gain...
Less than 18.5 kg/m <sup>2</sup>	500g/week
18.5 to 24.9 kg/m <sup>2</sup>	400g/week
Above 25kg/m <sup>2</sup>	Less than 300g/week

### Do I have a different weight gain goal if I am having twins or triplets?

Yes – if you are having more than one baby you will need to gain more weight than outlined above. Use these recommendations instead:

If your <i>pre-pregnancy BMI</i> was...	You should gain...
Less than 18.5 kg/m <sup>2</sup>	Talk with your dietitian/obstetrician
18.5 to 24.9 kg/m <sup>2</sup>	16 to 24kg
25 to 29.9 kg/m <sup>2</sup>	14 to 23 kg
Above 30 kg/m <sup>2</sup>	11 to 19kg

There are charts to help you and your healthcare team keep track of your weight change during pregnancy.

These are freely available at

[https://www.health.qld.gov.au/nutrition/nemo\\_antenata](https://www.health.qld.gov.au/nutrition/nemo_antenata)



## **What should I do if I am not gaining enough weight?**

Not gaining enough weight means you and/or your baby may miss out on important nutrients. It is important to have three meals a day, and also have between-meal snacks, such as morning tea, afternoon tea and supper.

Good snacks include:

- Fruit toast
- Dried fruit, nuts, and seeds
- Yoghurt
- Muesli bars
- Cheese & crackers
- Milk drinks

Sometimes women who have morning sickness early in pregnancy find it difficult to gain enough weight. Sometimes they even lose a small amount of weight. If this happens to you, you do not need to be concerned as long as you start to gain weight in the second trimester of your pregnancy.

## **What should I do if I am gaining weight too quickly?**

Gaining too much weight when you are pregnant can increase your blood pressure and risk of gestational diabetes.

To control your weight gain, limit foods that are high in fat and sugar. Make sure you are not 'eating for two'. It is also important to include regular physical activity on most days (see next page).

See the lists below for foods that you might like to swap or stop to help manage your weight gain.

### **Limit the amount of fat you eat by:**

- Limiting biscuits, cakes, chips, and crisps
- Reducing the amount of fat in cooking
- Choosing low fat dairy products (e.g. milk, yoghurt)
- Avoiding cream and sour cream
- Trimming fat from meat before cooking
- Using healthy cooking methods like grilling, steaming, baking
- Removing skin from chicken
- Limiting high fat takeaway foods.

### **Limit high sugar foods by:**

- Drinking water, not soft drink or cordial
- Using 'diet' or low joule products
- Limiting fruit juices to one glass per day as these are high in sugar (even 100% juice)
- Limiting chocolates, lollies, sweets and desserts.

*Listen to your hunger cues* and only have a snack if you are *actually* hungry.

*Watch your serve sizes*, especially of foods like rice, pasta, potato, bread and meat.

### **Returning to your pre-pregnancy weight**

The greatest amount of weight loss generally occurs in the first 3 months after birth. It then continues at a slow and steady rate until 6 months after birth. Breastfeeding helps you return to your pre-pregnancy weight as some of the weight you gain during pregnancy is used as fuel to make breast milk. Healthy eating and regular physical activity in the postnatal period will also help you to lose the weight gained during pregnancy.

### **Future pregnancies**

If you are planning another pregnancy, it is a good idea to return to your pre-pregnancy weight first, or close to this. Starting your pregnancy at a BMI above the healthy weight range puts you and your baby at greater health risks during pregnancy. Holding on to excess weight over multiple pregnancies can increase your risk of lifestyle diseases. Speak to your dietitian for more advice.

### **Food Safety**

Change to hormones during pregnancy may weaken your immune system. This can make it harder to fight infections. Foods can be a source of infections so protecting yourself from food poisoning is important.

### **Listeria**

Listeria is a bacteria found in some foods, which can cause an infection called listeriosis. If passed on to your unborn baby, it can cause premature birth or miscarriage. It is important to avoid foods that are a high risk of containing listeria during pregnancy. These include:

- Unpasteurised dairy products
- Soft cheeses such as brie, camembert, ricotta, and fresh fetta, unless they are cooked (yellow, hard cheese, and processed packaged cheese are safe)
- Soft serve ice cream and thick shakes
- All paté and ready to eat cold meats, including deli and packaged meats (e.g. ham, salami, cooked chicken)
- Ready-to-eat salads (from salad bars, buffets, supermarkets)
- Raw or smoked seafood (including oysters, salmon, sashimi, sushi)

Always keep your food 'safe:

- Choose freshly cooked and freshly prepared food. Avoid ready-to-eat food from salad bars, sandwich bars, delicatessens and smorgasbords.
- Thaw food in the fridge or defrost in the microwave.
- Cool left over food in the fridge rather than the bench.
- Wash your hands, chopping boards and knives after handling raw foods.
- Make sure hot foods are hot (above 60 degrees Celsius) and cold foods are cold (below 5 degrees Celsius), both at home and when eating out.
- Make sure all food is fresh and used within the use-by date.
- Wash fruits and vegetables thoroughly
- Cook all meat, chicken, fish, and eggs thoroughly
- Reheat leftover foods to steaming hot (above 74 degrees) for over 2 minutes before eating.
- Eat leftovers within 24 hours or freeze

Some other bacteria can be harmful to your unborn baby. In addition to the precautions above:

- Do not eat raw or undercooked eggs. Eggs must be well cooked so that both the white and yolk are hard.

## **Managing food-related side effects**

### **Nausea and Vomiting**

Many women suffer from sickness, usually in early pregnancy. Morning sickness is usually caused by changes in hormones, and can affect you at any time of the day. By the end of the 4<sup>th</sup> month of pregnancy, symptoms usually disappear or become much milder.

Some tips that may help morning sickness:

- Eat small amounts every two hours – an empty stomach can cause nausea.
- Avoid smells and foods that make your sickness worse.
- Eat healthier carbohydrate foods: try dry toasts or crackers, breakfast cereals and fruit.
- Eat fewer fatty and sugary foods.

### **Heartburn**

Heartburn, or reflux, is a burning feeling in the middle of the chest that can also affect the back of the throat. It is caused when acid moves from the stomach, back up the oesophagus. This happens because hormonal changes during pregnancy relax stomach muscles, and also because as the baby grows, more pressure is put on your stomach.

Some tips to reduce heartburn:

- Eat small regular meals more often
- Avoid fatty, fried or spicy foods
- Avoid tea, coffee, carbonated drinks, chocolate drinks and alcohol
- Sit up straight while eating
- Do not bend or lie down after meals or wear tight clothes
- Sleep propped up on a couple of pillows.
- Eat in a calm, relaxed place
- Avoid peppermint and spearmint containing gums and herbal teas
- Avoid drinking at the same time as eating

### **Constipation**

Constipation is common during pregnancy. Bowel motions can be slowed down by hormonal changes (relax the muscles in your bowel) and pressure from the growing baby. It is important to have enough fibre, fluid and physical activity to avoid constipation. Good sources of fibre include vegetables, fruit, wholegrain and high fibre breakfast cereals, wholegrain bread, nuts, seeds and legumes. Drink plenty of water.

### **Being active during pregnancy**

For healthy women, physical activity during pregnancy is safe and has many benefits to both the mother and her unborn child.

It is important for all pregnant women to consult with their doctor about safe physical activity during and after pregnancy.

### **Benefits of being active include:**

- Less lower back pain and pelvic pain
- Lower stress levels, less anxiety or depression
- Easier to achieve ideal weight gain during pregnancy and return to a healthy weight after your baby is born.

### **How much is enough?**

To get the most health benefits, a good goal is *half an hour of low to moderate-intensity physical activity at a comfortable pace on most, preferably, all days*. You do not have to do it all at once. Your exercise can be spread over the day, in ten-minute blocks. Try three ten minute walks, or two fifteen-minute periods of activity.

For previously active women, *moderate to vigorous exercise can be continued for an uncomplicated pregnancy* – check with your doctor.

## What are some activities that I can do?

Many activities are safe during pregnancy including:

- Swimming, walking, cycling at moderate intensity
- Pregnancy specific exercise classes
- Water-based exercise
- Muscle strengthening exercises, including pelvic floor exercises

Classes that specially cater to pregnant women may be more suited to your needs and body changes during your pregnancy. They can adapt exercises for you, such as having you lie on your side as you exercise rather than on your back, which is not advised throughout your pregnancy.

Remember that activity that builds up as part of everyday activities counts too!

Try to:

- Use the stairs instead of the lift
- Park your car further away from the shops
- Get off the train or bus one stop early and walk home
- Be active around the house or garden

For more information, contact your physiotherapist or exercise physiologist.

## Breastfeeding

Now that you are up to date on healthy eating for yourself, you need to start thinking about nutrition for you and your baby when he or she arrives.

Breastfeeding is the natural way to feed your baby. Breastmilk is a complex food. It changes to meet the particular needs of each child from the very premature baby to the older toddler.

## Food for health

Breastfeeding has a positive effect on the health of both mothers and babies. For this reason, the World Health Organisation (WHO) and the Australian Department of Health recommend that all babies are breastfed *exclusively* (i.e. no other food or drinks) for around the *first 6 months* and then continue to receive breastmilk (along with food and drink) into the child's 2nd year and beyond.

Research shows that the longer the breastfeeding relationship continues, the greater the positive health effects.



## Breastmilk provides:

- *Protection for baby* from infections such as ear, stomach, chest and urinary tract; diabetes, obesity, heart disease, some cancers, some allergies and asthma.
- *Protection for mother* from breast and ovarian cancers, osteoporosis and other illnesses.

## Preparing to succeed

Research shows that nearly all of women are able to meet the breastmilk needs of their babies. Ask the midwife to put your baby skin to skin on your chest as soon as possible after birth. Take the midwife up on her offer to help your baby lead attachment to your breast. Talk to your family, friends and workplace about your decision to breastfeed so they are ready to support you once your baby has arrived.

Content in this handout was informed by:

Caboolture mums & little ones project – Pregnancy Pocketbook. (2006-2009), Queensland Health.  
Callaway, L.K., et al. (2006). *The prevalence and impact of overweight and obesity in an Australian obstetric population*. Medical Journal of Australia. 184(2): p 56-59.  
Food Standards Australia and New Zealand (2015). *Caffeine fact sheet*.  
<http://www.foodstandards.gov.au/consumer/generalissues/Pages/Caffeine.aspx>  
Food Standards Australia and New Zealand (2015). *Listeria and food fact sheet*.  
<https://www.foodstandards.gov.au/publications/Pages/listeriabrochuretext.aspx>  
Food Standards Australia and New Zealand (2011). *Mercury in fish fact sheet*.  
<http://www.foodstandards.gov.au/consumer/chemicals/mercury/pages/default.aspx>  
The Growing Years Project, Brochure 2: Nutrition and physical activity when you're pregnant, (2005-2009), University of the Sunshine Coast.  
Institute of Medicine (2009). *Weight Gain During Pregnancy: Re-examining the Guidelines*. National Academies Press.  
National Health and Medical Research Council (2013). *Australian Dietary Guidelines*. Canberra: National Health and Medical Research Council.  
National Health and Medical Research Council (2012) *Infant Feeding Guidelines*. Canberra: National Health and Medical Research Council.  
National Health and Medical Research Council (2006). *Nutrient Reference Values for Australia and New Zealand*. Canberra: National Health and Medical Research Council.  
National Health and Medical Research Council (2010), Public Statement, *Iodine supplementation for pregnant and breastfeeding women*.  
[https://www.nhmrc.gov.au/files\\_nhmrc/publications/attachments/new45\\_statement.pdf](https://www.nhmrc.gov.au/files_nhmrc/publications/attachments/new45_statement.pdf)  
Sports Medicine Australia (2016). Position Statement. *Exercise in Pregnancy and the Postpartum Period*.  
<http://sma.org.au/wp-content/uploads/2016/09/SMA-Position-Statement-Exercise-Pregnancy.pdf>