



Healthy eating and regular physical activity are important factors to optimise conception and a healthy pregnancy

Healthy Eating for Pre-Conception & Pregnancy

Good nutrition during pre-conception and pregnancy are important to ensure a healthy pregnancy for both mother and baby. The need for certain nutrients, such as iron, folate and iodine are increased at this time, but contrary to popular belief, only a small amount of extra energy (kilojoules) is required during the third trimester of pregnancy, so it is unlikely that you need to eat more food, but you may just need to eat more healthily.

Healthy Weight for Conception & Pregnancy

If you are planning to conceive and you are above or below your healthy weight range, reducing or increasing your weight toward your healthy weight range will increase the likelihood of successful conception and a healthy pregnancy. A combination of healthy eating and physical activity can help you achieve this goal.

Weight Gain during Pregnancy

Weight gain during pregnancy is dependent on many factors such as your weight before the pregnancy, fluid retention, number of babies, and the size of your baby to mention a few.

As a general guide, a healthy weight gain over the course of pregnancy is usually 11.5–16kg for women who are within a healthy weight range at the time of conception.

Weight gain during pregnancy can be approximately attributed to:

- Baby: 3-4kg
- Placenta: 0.5kg
- Breasts: 0.5-1kg
- Amniotic Fluid: 1-2kg
- Uterus: 1kg
- Extra Blood Volume: 1.2-1.5kg
- Fat Stores for Breastfeeding: 2.5-3.5kg
- Fluid Retention: 1-1.5kg

If you are above or below your healthy weight range at conception, discuss expected weight changes during the pregnancy with your dietitian.

It is generally advised that if you are overweight at the time of conception, additional weight gain should be restricted as your body will have adequate fat stores in reserve for breastfeeding, and further weight gain may increase the risk of having a complicated pregnancy and birth.



A male's weight can also affect the success of conception as being overweight may reduce sperm quality

Healthy Eating for Conception & Pregnancy

It is important to choose a wide variety of foods to ensure the nutritional needs of both mother and baby are met. Your daily intake should include:

- 2 serves of fruit
- 5 serves of vegetables (including legumes) daily (especially leafy green vegetables)
- 4-8 serves wholegrain breads and cereals
- 3 serves of low-fat dairy foods
- 100-150g lean meat or skinless poultry or low mercury fish or 2 eggs or ½ cup of legumes/lentils or tofu most days
- Adequate fluid (minimum 2L), preferably water
- Limited amounts of foods and beverages high in saturated fat, added sugar and salt
- Limited amounts of caffeine containing products
- Avoidance of alcohol.

Additional Food Requirements

For most women, there is no need to eat significantly more food during pre-conception or pregnancy. The focus should instead be on including a variety of nutritious foods each day.

It is recommended that for the first trimester of pregnancy, your energy (kilojoule) intake should remain approximately the same as it was prior to your pregnancy.

Exceptions may occur if you are having a multiple pregnancy twins or triplets or were underweight at the time of conception.

During the second and third trimesters, energy requirements increase slightly as your baby grows and you begin to store additional fat in anticipation for breast feeding.

In addition to your usual dietary intake, choose 2-4 snacks from the following list:

- 200g yogurt, or
- 1 serve of fruit, or
- 1 slice of wholegrain bread, or
- 4-6 wholegrain dry biscuits, or
- 20-30g of nuts, or
- 1 cup popcorn, or
- 1 cob of corn, or
- 2 hard-boiled eggs, or
- 250ml milk.



Speak to your dietitian about your weight gain goals.



Be sure to choose snacks that are nutrient dense rather than ones that are energy dense.



Ask your dietitian which nutritional supplements you should take



Discuss with your dietitian if you are meeting your recommendations for folate

The Dangers of “Dieting”

Some women fear extra weight gain during pregnancy and decide to eat sparingly to avoid gaining body fat. Restricted eating (eating less than the recommended serves above) or crash dieting in any form while pregnant can compromise the health of both mother and baby.

Increased Nutritional Requirements

For optimal pre-conception and pregnancy there are some vitamins and minerals that are particularly important for your health and your baby’s development.

A multi vitamin supplement may be recommended for pre-conception and during pregnancy, and for some women during breastfeeding. It is best to discuss the best choice for you with your dietitian.

Multi vitamins not formulated specifically for pregnancy are generally not recommended as there are dangers associated with excessive doses of nutrients such as Vitamin A and Vitamin B6.

Folate (Folic acid)

Folate (also known as folic acid when added to foods) is a B-group vitamin found in a variety of foods. Folate is most important to reduce the risk of neural tube defects such as spina bifida.

The recommended folate intake of 1000ug/day is best achieved through a *combination* of eating folate rich foods (see list below) and supplementation (minimum 400mg/day) at least one month prior to conception and for the first three months of pregnancy. After the first three months of pregnancy, the requirement for folate reduces to 600ug/day, so you can cease folic acid supplements.

Women who have a family history of neural tube defects, have existing diabetes, smoke or are overweight, may benefit from higher levels of supplementation and should consult their Dietitian during the planning of the pregnancy or as soon as possible.

Good sources of dietary folate include:

- Leafy Green Vegetables
- Legumes and Lentils
- Wholegrain foods
- Yeast Extracts (i.e. Vegemite)

In addition, some breakfast cereals, bread and fruit juice varieties are fortified with folic acid. The folate content of food products will be listed on the nutrition panel.



All women should have their iron levels tested via a blood test during pre-conception or early pregnancy and again at 28 weeks gestation to prevent or detect iron deficiency



If you have a thyroid condition, please consult your treating doctor or dietitian before commencing any iodine containing supplement or significantly increasing your consumption of dietary sources of iodine

Iron

Low iron levels in early pregnancy have been linked to premature birth and low birth weight. Pregnancy increases the need for iron in your diet as your growing baby requires iron for development.

Your requirement for iron increases from 18mg to 27mg of iron daily during pregnancy.

It is also important to note that if you have a history of iron deficiency anaemia or follow a vegetarian or vegan diet you may be more susceptible to having iron deficiency during pregnancy.

To maximise iron absorption from your diet it is useful to combine foods that are rich in iron with foods that are rich in Vitamin C (ascorbic acid). Examples include:

- Lean red meat with capsicum and/or green leafy vegetables such as broccoli
- Addition of fresh tomato to legumes
- Iron-fortified breakfast cereal topped with kiwi fruit

In addition, it is also beneficial to avoid having tea, coffee or unprocessed bran with, or close to mealtimes or when taking supplements, as these can reduce iron absorption.

Iodine

Iodine is important for a baby's brain development. Recent evidence suggests that iodine intake in the general population is often below the recommended intake.

During pregnancy the requirement for iodine increases from 150ug/day to 220ug/day. Many women may not reach this target through diet alone and therefore a supplement containing 100-200ug/day of iodine may be recommended.

Good sources of dietary iodine include:

- Seafood & fish
- Kelp & seaweed
- Iodised salt

Smaller amounts are found in dairy foods, eggs and some plant foods if they are grown in iodine-rich soils.

Vitamin A

Excessive intake of vitamin A may cause birth deformities. It is therefore advised to avoid any multivitamin supplements that contain vitamin A and also avoid eating large quantities of food rich in vitamin A such as liver.



Research studies indicate that alcohol consumption is associated with decreased fertility – for both women and men



If you or your partner smokes, it is advised to quit smoking for optimal conception and a healthy pregnancy

Additional Dietary Considerations

Alcohol

Alcohol in a woman's blood stream passes to her unborn baby.

Many international guidelines recommend when thinking about drinking alcohol:

For women who are pregnant or planning a pregnancy, not drinking is the safest option.

Caffeine

Caffeine is found in coffee, tea, chocolate, cocoa, cola soft drinks and energy drinks. It may also be found in some over-the-counter medications, like cough syrup and slimming tablets.

As a stimulant, caffeine acts on the brain and nervous system and circulates in our blood stream. For women planning to become pregnant or who are already pregnant consuming excessive amounts of caffeine may:

- Increase your risk of miscarriage, and/or
- Increase the risk of having a baby with a low birth weight.

Therefore, women who are planning to become pregnant or who are already pregnant are advised to limit their daily caffeine intake to 200mg per day or less. This is equivalent to 2 small cups of coffee or 4 cups of tea.

Mercury

High levels of methyl mercury can damage our nervous system. Unborn babies are particularly vulnerable because their brains are developing very rapidly.

The most common source of mercury in our diets are large fish and shark (flake). However, low mercury fish, particularly those high in omega 3 are recommended 2-3 times per week.

Number of serves of different types of fish that can be safely consumed

Pregnant women & women planning pregnancy	Children (up to 6 years)	Rest of the population
1 serve equals 150 grams [#]	1 serve equals 75 grams [#]	1 serve equals 150 grams [#]



Some studies indicate that increased caffeine consumption is associated with decreased fertility especially for women



Seafood that is high in Omega 3, but low in Mercury include:

- *Salmon*
- *Blue Eye*
- *Sardines*
- *Herring*
- *Rainbow Trout*
- *Flat Head*
- *Oysters*
- *Scallops*
- *Mussels*

2 – 3 serves per week of any fish and seafood not listed below	2 – 3 serves per week of any fish and seafood not listed in the column below
OR	OR
1 serve per week of Orange Roughy (Sea Perch) or Catfish and <u>no</u> other fish that week	1 serve per week of Shark (Flake) or Billfish (Swordfish / Broadbill and Marlin) and <u>no</u> other fish that week
OR	
1 serve per fortnight of Shark (Flake) or Billfish (Swordfish / Broadbill and Marlin) and <u>no</u> other fish that fortnight	

Artificial Sweeteners

It is advised to avoid consuming *Saccharin (954)* or *Cyclamate (952)* sweeteners during pregnancy. Check food labels to see if either of these products is listed.

Common artificial sweeteners that are recognised as safe to consume during pregnancy include Aspartame (951) & Sucralose (955), however there have been studies suggesting that they may increase a baby's preference to sweet foods so it is recommended that they are used sparingly.

Herbal Supplements, Extracts or Herbal Tea

If you currently take or are planning to take any additional herbal supplements/extracts or drink large quantities of herbal tea please discuss with your health care professional in relation to their safety during pre-conception and pregnancy.

Vegan or Vegetarian Diets

If you follow a vegan or vegetarian diet, you may require additional supplementation for vitamin B12, calcium and zinc in addition to iron, folate & iodine to meet the nutrition needs of both yourself and your developing baby.

Including adequate sources of protein from appropriate food sources such as lentils, legumes, tofu, nuts (plus eggs & dairy for vegetarian mothers) is also important, along with calcium fortified products, such as soy milk and yoghurt.

Managing Gastric Upset

Hormonal changes and your baby's growth during pregnancy may also affect your digestion.

Indigestion & Reflux

Indigestion and reflux are common symptoms in pregnancy because, as your baby



During pregnancy, all seafood should be well-cooked.

grows, there is more pressure on your digestive system. The following suggestions may help:

- Eat smaller more frequent meals and snacks,
- Avoid large serving sizes at meals,
- Avoid fried or highly spiced foods,
- Sip fluids regularly throughout the day, rather than larger amounts occasionally,
- Avoid eating late at night,
- Restrict bending, lifting or lying down after meals, and
- Try sleeping with your bed head raised a few inches by placing an additional pillow under your mattress.

Constipation

Some women experience constipation especially during the later parts of pregnancy. A high dietary fibre intake combined with plenty of fluid and regular gentle physical activity can help manage this.

You should aim to:

- Drink at least 2L of fluid daily (preferably water),
- Increase your fibre intake gradually including both soluble and insoluble sources of fibre, and
- Undertake at least 30 minutes of physical activity each day.

Nausea and Vomiting

Nausea and vomiting are common particularly in the first trimester of pregnancy.

The following suggestions may help:

- Get up slowly, avoiding sudden movements,
- Try eating dry biscuits before you get out of bed in the morning and/or a light snack, such as a piece of fruit or a tub of yoghurt, before going to bed at night,
- Avoid large serving sizes at meals,
- Avoid fried, greasy, high fat or highly spiced foods,
- Suck something sour like a lemon,
- Try eating a small portion of carbohydrate food every 3 hours, such as fruit, yogurt, bread or dry biscuits,
- Get into the fresh air as much as possible,
- Keep rooms well ventilated and odour free,
- Try food and drinks containing small amounts of ginger,
- Avoid strong food smells, and
- If possible, have other people assist with cooking, or prepare food at times of the day when you feel less nauseous.

If vomiting, it is particularly important to maintain good hydration levels. Try:



Before taking any medications for indigestion, reflux or constipation consult with your dietitian, doctor or pharmacist in relation to their safety during pre-conception and pregnancy



Good sources of soluble fibre include:

- Legumes
- Lentils
- Oats & Barley
- Fruit & Vegetables
- Psyllium Husks



Good sources of insoluble fibre include:

- Wheat bran
- Wholegrain breads & cereals
- Fruit & vegetable skin

- Sipping fluids frequently throughout the day,
- Add a squeeze of fresh lemon or lime to plain water,
- Ginger ale,
- Experimenting with different temperature fluids, and/or
- Crushed ice & ice blocks, or frozen fruit such as berries or orange segments.

If nausea or vomiting is persistent or unmanageable, or you are considering taking any anti-nausea medication, please consult your treating doctor.

Food Hygiene

During pregnancy, extra precautions for food hygiene are encouraged to reduce the risk food borne infections especially the risk of listeria and salmonella infections.

General Guidelines

- Always wash your hands before and after preparing/eating food,
- Keep your kitchen surfaces clean,
- Do not let uncooked food contaminate cooked food,
- Wash fruit, vegetables and salad before refrigerating and eating,
- Cook raw eggs, meat, poultry, fish and seafood thoroughly,
- Keep pets away from kitchen surfaces,
- Wear rubber gloves when handling cat litter trays, animal droppings, soil and garden fertilizers,
- Refrigerate leftover food immediately and consume within 24 hours,
- When reheating food, especially in a microwave, make sure the food is steaming hot,
- Store all food at correct temperatures,
- Abide by "use by" dates on packaged foods, and
- Thaw frozen meat, poultry and seafood in the fridge.

Listeria

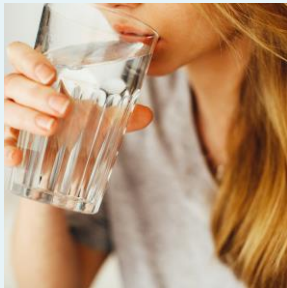
Although infection is rare, the bacteria *Listeria monocytogenes* can increase the risk of miscarriage, stillbirth or premature labour. A listeria infection is easily treated with antibiotics, but prevention is best by avoiding high risk foods and maintaining good food hygiene.

Listeria and Salmonella high risk foods

Cold Meats/Poultry	<ul style="list-style-type: none"> • Ready to eat deli meats from delicatessen / sandwich bars • Pre sliced packaged ready to eat meat • Cooked, cold chicken
Pate	<ul style="list-style-type: none"> • Refrigerated Pate / Meat spreads



Despite often being referred to as “morning sickness”, symptoms of nausea and vomiting may occur at any time of the day



It is also very important to ensure adequate hydration when exercising and during periods of hot weather, when you are likely to lose additional fluid through perspiration

Salads (Fruit & Veg)	<ul style="list-style-type: none"> • Pre prepared or packaged salads from salad/sandwich bars, delicatessen or smorgasbords
Seafood	<ul style="list-style-type: none"> • Raw (e.g. oysters, sushi), smoked, cooked and cooled prawns

Put what you’ve learnt into practice....

1. Are you keeping hydrated? How much water are you drinking each day?
2. With the help of your dietitian, calculate how much folate you should be taking.
3. Write down what you ate today. Circle all the foods that contain iron.
4. List 4 listeria high risk foods.
5. What’s one change that you can make to have a healthier pregnancy?

To book an appointment with one of our dietitians please visit us at www.nutritionplus.com.au