

Healthy eating for vegan pregnant and breastfeeding mothers

Healthy eating is important at all stages of life, especially during pregnancy. Your choices of what to eat and drink at this time can affect your health and the health of your baby for many years to come. A **well planned** vegan diet is able to meet nutrition requirements for pregnancy and breastfeeding.

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 very important that you make good choices for a **nutritious diet**. **This is important** 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 below. 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 bread/cereals is equal to ½ cup of pasta.

Food Group	Number of Serves		1 serve
Breads and Cereals	Pregnant 4-6	Breast Feeding 5-7	2 slices bread 1 medium bread roll 1 cup cooked rice, pasta, noodles 1 cup breakfast cereal flakes or porridge ½ cup muesli
Fruit	Pregnant 4	Breast Feeding 5	1 piece medium sized fruit 2 pieces smaller fruit 8 strawberries 20 grapes or cherries ½ cup juice or 1 cup diced / canned fruit 1 ½ tbsp sultanas
Vegetables	Pregnant 5-6	Breast Feeding 7	1 medium potato / yam ½ medium sweet potato 1 cup lettuce or salad vegies ½ cooked vegetables
Nuts and legumes	Pregnant 1 ½	Breast Feeding 2	1/3 cup cooked dried beans, lentils, chick peas, split peas or canned beans 1/3 cup peanuts, almonds
Dairy alternatives	Pregnant 2	Breast Feeding 2	1 cup calcium fortified soy milk
Extras Foods	0-2½		3-4 sweet biscuits 30 g potato crisps 2 scoops ice-cream 1 tbsp(20g) butter, margarine, oil

Protein

Pregnant or breastfeeding women should aim to include protein sources **at each meal** such as nuts, seeds, soy products and dried beans and peas.

Folate or Folic acid during pregnancy

Folate (or folic acid) is needed for the growth and development of your baby. 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 some abnormalities such as spina bifida (a disorder where the baby's spinal cord does not form properly). Dietary sources high in folate include green vegetables such as broccoli, spinach and salad greens, some fruits and fortified cereals.

All women planning a pregnancy and in the early stages of pregnancy should eat a variety of folate-containing foods e.g. green leafy vegetables such as spinach, broccoli, bok choy, and foods fortified with folic acid (fruit juice, bread, breakfast cereal). You should also take a folic acid supplement of 400 micrograms per day at least one month before and three months after you become pregnant.

Iron during pregnancy

Iron is needed to form the 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 so for women who follow a vegan diet an iron supplement is highly recommended. Good sources of additional dietary iron are legumes (beans, peas, lentils) dark green vegetables, dried fruits, nuts, fortified soy milks, breakfast cereals and wholemeal breads. Vitamin C will help its absorption, so combine it with citrus fruit, berries, juice or tomato. Talk to your dietitian or midwife to make sure you are getting enough iron from your diet.

What you eat or drink can stop your body using iron from your diet. You should limit your intake of these. They include:

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

You can help your body get 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.

Iodine

Adequate iodine in pregnancy is essential for your baby's growth and brain development. Iodine is needed in higher amounts during pregnancy. It is now recommended that all pregnant women should take a supplement containing 150 micrograms of iodine. You still need to consume good food sources of iodine in addition to this supplement. These food sources include:

- Iodised salt (look for the green label)
- Bread with added iodine
- Fortified margarine

Multivitamin supplements

A folate supplement is important during the first trimester of pregnancy. You may also need to take an iron supplement if your iron levels are low. However, a multivitamin during pregnancy is not necessary unless you do not have a balanced diet – compare what you are eating with the table on the first page of this sheet.

If you choose to 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 an excessive intake of these can be harmful and reduce the absorption of other nutrients.

Calcium

Calcium fortified soy products are important to meet calcium requirements whilst pregnant. Also include tofu, almonds, sesame seeds and tahini.

Vitamin B12

Significant amounts of B12 are usually found in animal products, so your intake will be limited. A good amount can be consumed by having at least two serves of soy milk fortified with B12 daily. Food fermented by micro-organisms (soy sauce, miso, tempeh), manure-grown mushrooms, spirulina and yeast may contain small amounts of vitamin B12, but this is not sufficient to meet your requirements for vitamin B12. Discuss your vitamin B12 levels and requirements with you Doctor or midwife.

Zinc

Good sources for vegans include beans and lentils, yeast, nuts, seeds and wholegrain cereals. Pumpkin seeds provide one of the most concentrated vegan food sources of zinc.

Weight Gain

The amount of weight to gain during pregnancy will depend on what your weight was before you became pregnant. Your midwife or dietitian will be able to calculate your body mass index (BMI) (a measure of your weight for height) to help you work this out.

If your pre-pregnancy BMI was..	You should gain...
Less than 18.5 kg/m ²	12½ to 18kg
18.5 to 24.9 kg/m²	11½ to 16kg
25 to 29.9 kg/m ²	7 to 11½ kg
Above 30 kg/m ²	5 to 9kg

It is important to keep your weight gain in this range for both your health and the health of your baby. Not gaining enough weight means your baby may miss out on some important nutrients. This can cause problems later in life. Insufficient weight gain is also linked with preterm birth. Gaining too much weight during pregnancy can also cause problems such as high blood pressure, gestational diabetes, complications in delivery, and longer hospital stays for you or your baby. These problems can be harmful to both you and your baby. If you need some support to manage your weight gain during pregnancy, talk to your dietitian or midwife.

Food safety during pregnancy

Hormonal changes during pregnancy may make your immune system weaker. This can make it harder to fight infections. Foods are sometimes 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, miscarriage or damage. The risk is the same through your whole pregnancy.

Always keep your food 'safe' by:

- Choose freshly cooked and freshly prepared food.
- Thawing food in the fridge or defrosting food in the microwave.
- Cooling 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, used within the used-by date,
- Eat left overs within 24 hours and reheat foods to steaming hot.
- Heat leftovers to above 74 degrees for over 2 minutes
- Never re-freeze food once it has been thawed.

Foods that might contain Listeria and should be avoided include:

- Ready-to-eat salads (from salad bars, buffets, supermarkets etc)

Some other bacteria and parasites can be harmful to your unborn baby.

In addition to the precautions above

- Wear gloves when gardening and wash hands afterwards
- Avoid contact with cats and use gloves when handling cat litter (cats can be a source of Toxoplasmosis- a serious infection that can cause defects or death in your baby).



Special Considerations during pregnancy

Caffeine

During pregnancy caffeine takes longer to break down in your body. Generally 2-3 cups of coffee or up to 4 cups of tea a day are okay, but decaffeinated drinks are a better alternative. Try to limit your intake of caffeine containing drinks and foods.

Alcohol

Alcohol crosses the placenta and can lead to physical, growth and mental problems in babies. There is no known safe level of alcohol consumption during pregnancy. The safest option is not to drink during your pregnancy.

Nausea and Vomiting

Many women suffer from sickness, usually in early pregnancy. Morning sickness is usually caused by the hormonal changes of pregnancy, and can affect you at any time of the day. By the end of the 4th month of pregnancy, symptoms usually disappear or become much milder. Some tips to 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 more nutritious carbohydrate foods: try dry toasts or crackers, breakfast cereals and fruit.
- Eat less 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, cola drinks, chocolate drinks and alcohol
- Sit up straight while eating
- Do not bend after meals or wear tight clothes
- Sleep propped up on a couple of pillows

Constipation

Constipation is common during pregnancy. Hormone changes may relax the muscles in your bowel which together with pressure from the growing baby can slow down your bowel movements. It is important to have enough fibre, fluid and exercise to avoid constipation. Good sources of dietary fibre include; Vegetables, fruit, wholegrain and high fibre breakfast cereals, wholegrain bread, nuts, seeds and legumes. Water is the best drink.

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

Mothers & Babies are designed to Breastfeed

Breastfeeding is the normal 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 an amazingly 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** (ie. no other food or drinks) for around the **first 6 months** and then continue to receive breastmilk (along with complementary 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.
- **Healthier communities & environment**

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.

References:

1. Children's Health Development Foundation, S. A., and Deakin University, Victoria, (1998). Australian Guide to Healthy Eating. Commonwealth Dept of Health and Family Services. Canberra, Commonwealth Department of Health and Family Services.
2. National Health and Medical Research Council (2003). Food for Health: Dietary Guidelines for Children and Adolescents in Australia incorporating the Infant Feeding Guidelines for Health Workers, Commonwealth of Australia, Canberra.
3. National Health and Medical Research Council (2006). Nutrient Reference Values for Australia and New Zealand Executive Summary. Dept. Health and Ageing. Canberra, Commonwealth of Australia.
4. Institute of Medicine (2009). *Weight Gain During Pregnancy: Reexamining the Guidelines*, National Academies Press.
5. Zimmermann M, Delange F. Iodine supplementation of pregnant women in Europe: a review and recommendations. *Eur J Clin Nutr* 2004;58:979-984.
6. Foods Standards Australia and New Zealand, Listeria and food fact sheet, 2005.
7. Food Standards Australia and New Zealand, Mercury in Fish fact sheet, 2004.
8. World Health Organisation. *Global Strategy for Infant and Young Child Feeding*. World Health Organisation, 2003.
9. Queensland Health. *Optimal infant nutrition: evidence-based guidelines 2003-2008*. Queensland Health Brisbane 2003.
10. World Health Organisation. *Infant Feeding: The Physiological Basis*. 1996. James Akre (ed), WHO, Geneva.
11. National Health and Medical Research Council (2010), Public Statement, *Iodine Supplementation for pregnant and breastfeeding women*.