

OPTIMAL NUTRITION DURING BREASTFEEDING

Optimising the nutritional intake of a breastfeeding mother contributes to the best possible health outcomes for both infant and mother, both in the short and long-term. Breastfeeding mums should eat a balanced and varied diet emphasising wholegrain cereal products, vegetables, fruits, low-fat dairy products and healthy sources of protein. Many of the nutrients present in breast milk reflect the maternal diet and most substances that the mother ingests are secreted into her breast milk. If there is inadequate consumption of particular nutrients in the mother's diet, such as calcium or iron, the requirements of the infant will take priority and leave the mother depleted or deficient in these nutrients.

Nutritional requirements during breastfeeding differ slightly from the nutrient requirements of pregnancy. Whilst there is a decrease in the requirements for folate and iron compared with pregnancy, there are increases for some vitamins and minerals, as well as for total energy and protein. A moderate intake of monounsaturated and polyunsaturated fats (such as those found in fish, vegetables, nuts and seeds) is recommended in lactation, whilst the intake of saturated and trans fats should be minimised.

Recommended dietary intakes for breast-feeding include:

Age group	Dietary fibre (g/day)	Calcium (mg/day)	Iron (mg/day)	Sodium (mg/day)	Folate as (mcg/day)	Vitamin C (mg/day)
14-18yrs	27	1300	10	460-920	500	80
19-30yrs	30	1000	9	460-920	500	85
31-50yrs	30	1000	9	460-920	500	85

(Adapted from The Australian Guide to Healthy Eating¹)

To achieve the intakes shown in the table above, as well as the recommended intakes of all other nutrients, the following servings should be aimed for each day during the first 6 months of breastfeeding. Requirements will decrease thereafter as baby increases his/her intake of solids. Although energy needs are increased during lactation these extra kilojoules should be sourced primarily from nutritious sources and not from unhealthy "extra" foods. Water should be consumed each time baby breastfeeds, as well as between feeds, to achieve an approximate total intake of 2-3L of water daily.

FOOD GROUP	DAILY SERVES	EXAMPLES OF A SERVE
Breads Cereals Rice, Pasta or Noodles	5-7	2 slices bread or 1 bread roll 1 ¹ / ₃ cups breakfast cereal, 1 cup porridge, ¹ / ₂ cup untoasted muesli 1 cup cooked rice, pasta or noodles
Vegetables Legumes	7	¹ / ₂ cup cooked vegetables or 1 cup salad vegetables, 1 small potato ¹ / ₂ cup cooked lentils, peas or dried beans
Fruit	5	2 small or 1 medium piece of fresh fruit, ¹ / ₂ cup fruit juice 1 cup tinned fruit
Milk Yoghurt Cheese	2	1 cup milk or soy milk (Calcium fortified), ¹ / ₂ cup evaporated milk, 200g yoghurt 2 slices (40g) cheese
Meat Fish Poultry Eggs Nuts & Seeds Legumes	2	65-100g cooked meat 80-120g cooked fish fillet 65-100g cooked chicken 2 small eggs ¹ / ₃ cup peanuts, almonds, ¹ / ₄ cup sunflower seeds, sesame seeds ¹ / ₂ cup cooked lentils, chickpeas, canned or dried beans
Extra foods	0-2.5	50g ice-cream or 25g chocolate bar 375mL soft drink ¹ / ₃ meat pie or 12 hot chips

We know what matters

LOSING WEIGHT WHILE BREASTFEEDING: Breastfeeding is nature's way of gradually losing the stores of body fat gained during pregnancy. A return to pre-pregnancy weight by approximately 6 months after baby is born is linked to a lower risk of overweight and obesity 10 years later. This is associated with a lower risk of high blood pressure, heart disease and type 2 diabetes; as well as many other health problems.

While initial weight loss may be significant it can be difficult to lose all of those extra kilos gained through pregnancy. Restricting energy intake severely is definitely not recommended, as this will adversely affect breast milk supplies (breast milk production requires on average 3000KJ per day). Research shows that the best way to lose that extra weight is through a combination of exercise and a healthy diet. Lean muscle mass is maintained through exercise and this is important for metabolic rate and good health.

A comparison of weight loss diets with **different compositions of fat, protein and carbohydrate** intakes has shown **no significant differences in long-term weight loss** (6 months to 2 years) for the different diets. There was also no significant difference in levels of hunger or fullness. It is therefore not the percentage of fat, carbohydrate or protein that made a difference to weight loss in these people but rather the **total amount of kilojoules being consumed** and the total amount of kilojoules being expended.

SUPPLEMENTS: It is **ideal to obtain all of your nutritional requirements from your diet**. There is so much more nutrition in an orange than a Vitamin C tablet, whilst substituting soft drinks for low fat milk means missing out on so much more than what you can replace with a calcium supplement. However for those who aren't meeting recommended intakes it would be wise to speak to a health professional with knowledge in nutrition about an appropriate supplement. Keep in mind that supplementing with more than daily requirements will generally not incur any additional benefits and may do harm.

FISH INTAKE: Fish (eg salmon, fresh tuna, mackerel, sardines) are an excellent source of long chain omega 3 fatty acids which are involved in the development of baby's brain and nervous system. **Consumption of 2-3 serves of fish per week with at least one of those serves being high in omega 3** is ideal. If this is not achieved, daily fish oil supplementation would be wise.

VITAMIN D: Deficiencies of Vitamin D in lactating women, and consequently also their infants, are present in Australia. This is an extremely important issue for women who are dark-skinned or veiled, as well as for those who do not obtain 2 to 3 hours of direct sunlight on approximately a third of the body each week. Blood tests indicate the current level of this vitamin in the mother and determine whether supplementation may be required. Inadequate Vitamin D levels in infants is the cause of **rickets**, while in the mother this is a major factor in **osteoporosis**.

VEGANS: Whilst a vegetarian diet can be an extremely healthy way of life, a vegan diet which eliminates all animal products has its risks and **individual dietary advice** should be sought. **Vitamin B12** levels must be monitored as the infant can suffer from irreversible nerve damage if the mother is deficient in this vitamin. The **minerals** that may be needed in supplemental form are **iron, zinc and calcium** whilst the higher **protein** needs of breastfeeding also need to be taken into account.

INFANT ALLERGY: Avoidance of allergic dietary compounds (such as nuts, eggs, wheat or dairy) by the mother has not been shown to prevent or treat allergic disease in the child; whilst cutting out these foods may be to the detriment of the nutritional status of the mother and infant. Research states that continuation of **exclusive breastfeeding** for the first **4-6 months** of baby's life and **continued breastfeeding** throughout the introduction of solids can reduce allergies in infants. It is recommended to begin a gradual introduction of solids no earlier than 4 months and no later than 6 months (according to baby's readiness); with a few days in between each new food to check for any possible problems.