



Behind the hype:

# Nutrition supplements in pregnancy and breastfeeding

## Why is this an issue?

Nutrition needs are higher during pregnancy and breastfeeding<sup>1</sup>. Meeting those needs is important for a healthy mother and baby. Expensive supplements are often marketed to parents wanting to conceive, during pregnancy and when breastfeeding. However, with the exception of folic acid and iodine, most women can meet their nutrition needs with a healthy, balanced diet<sup>1</sup>.

## What nutrition supplements are needed?

The only supplements routinely recommended for all pregnant women in New Zealand are folic acid-only tablets and iodine-only tablets (see Table 1). These are available from pharmacies at a subsidised cost, with a prescription from a midwife or General Practitioner (GP).

Eating a well-balanced diet containing a wide variety of foods will ensure other nutrient requirements are met<sup>1</sup>. Expensive branded supplements promoted for use during pre-conception, pregnancy and breastfeeding are unlikely to provide additional benefits than those provided by the subsidised tablets.

### Folate and Folic acid

Folate is a B vitamin that is important in cell growth and reproduction<sup>2</sup>. It is found naturally in foods such as green leafy vegetables and legumes. Folic acid is the synthetic form of this vitamin, found in supplements and fortified food. A lack of folic acid during early pregnancy has been linked to Neural Tube Defects (NTDs) such as spina bifida. Folic acid-only tablets are recommended from at least four weeks before conception and during the first 12 weeks of pregnancy, to reduce the risk of NTDs<sup>2,3,4</sup>. If not taking already, folic acid supplements should be started on confirmation of pregnancy.

### Iodine

Iodine is an essential nutrient needed to support normal growth and development<sup>3</sup>. Iodine requirements are higher during pregnancy and breastfeeding, and supplements are recommended. It is also important to eat a variety of iodine-rich foods<sup>4,5</sup> as part of a well balanced diet.

## In a nutshell

- For most women, the only nutrition supplements needed during pre-conception, pregnancy and breastfeeding are folic acid and iodine. A balanced diet will meet all other nutrient requirements.
- Women following restrictive diets (such as vegans) may benefit from advice from a registered dietitian. Vegan women should take a vitamin B12 supplement. Women at risk of vitamin D deficiency should take a vitamin D supplement.
- Some vitamin, mineral or herbal supplements, particularly those with high doses, can be unsafe for pregnant and breastfeeding mothers. Supplements, other than folic acid and iodine tablets, should only be taken on the advice of a health professional.

## Other key nutrients during pregnancy and breastfeeding

- Vitamin D** is needed for strong bones and joints. A lack of vitamin D during pregnancy can lead to the baby being born with low vitamin D levels, which can affect development<sup>6</sup>. Those at increased risk for vitamin D deficiency may benefit from taking a vitamin D supplement. For example, people with darker skin and those who completely avoid sun exposure, as well as those who have liver or kidney disease, or who are on certain medications (eg, anticonvulsants)<sup>7</sup>.

- **Iron** is a carrier of oxygen throughout the body. There is an increased need for iron in pregnancy; not having enough iron leads to tiredness and fatigue during pregnancy and while breastfeeding.
- Pregnant and breastfeeding women need extra **calcium** for their growing baby and to keep their own bones strong.
- **Vitamin B12** prevents fatigue, plays an essential role in production of red blood cells, and is needed for appropriate functioning of the nervous system. Women following a vegan diet need vitamin B12 supplementation, as it is only found naturally in animal products.

In most cases, these nutrients can be obtained in sufficient amounts from food sources as part of a healthy balanced diet. Women should be encouraged to eat a wide variety of different foods each day and avoid restrictive diets. Supplementation, beyond folic acid-only and iodine-only tablets (discussed above), is only required in certain cases. Those on restrictive diets and those at risk of nutritional deficiencies should seek advice from a registered health professional before taking supplements.

**Table 1:**  
**Supplement recommendations**

Supplement	When to take	Dosage	Timing	Recommended foods*
Folic Acid/ Folate	Pre-conception and pregnancy	For the general population: 0.8mg/day (800µg/day)	From one month before conception until the end of week 12 of pregnancy	Vegetables (especially leafy greens), fruit eg, citrus, beans and peas, yeast extracts, cooked liver and/or kidney (limit to 1 serving/week), fortified wholegrain bread and cereals
		For women at risk of NTD affected pregnancy*: 5mg/day (5000µg/day)	From one month before conception until the end of week 12 of pregnancy	
Iodine	Pregnancy and breastfeeding	150µg/day	Throughout pregnancy and breastfeeding	Well cooked seafood, milk, cooked eggs, fortified wholegrain cereals, packaged sliced bread, iodised salt

\*Women at high risk include those who are themselves affected with a NTD, or who have had a child with a NTD, or a close family member who has had a NTD, or whose partner is affected or had a family history of NTD.



Free nutrition and physical activity resources are available from:  
[www.nutritionandactivity.govt.nz](http://www.nutritionandactivity.govt.nz)

## Which supplements should be avoided during pregnancy and breastfeeding?

- High doses of vitamin A can be toxic to the developing baby. Vitamin A supplements, including fish oils, are not recommended unless advised by a midwife or GP<sup>8</sup>.
- Supplements containing seaweed and kelp are not recommended for pregnant women because the iodine content and quality of the supplements is highly variable<sup>1</sup>.
- Herbs and other supplements (such as collagen), are untested, may not be regulated, and have no proven benefits. There is insufficient evidence to promote their use and, in some cases, they may not be safe to use during pregnancy and breastfeeding<sup>1</sup>. Always seek advice from a registered health professional before taking supplements during pregnancy and breastfeeding.

## References

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6. Ministry of Health (2018). Folic acid, iodine and vitamin D. <https://www.health.govt.nz/your-health/pregnancy-and-kids/pregnancy/helpful-advice-during-pregnancy/folic-acid-iodine-and-vitamin-d>. Accessed May 2020.
7. Ministry of Health (2013). Companion Statement on Vitamin D and Sun Exposure in Pregnancy and Infancy in New Zealand. <https://www.health.govt.nz/publication/companion-statement-vitamin-d-and-sun-exposure-pregnancy-and-infancy-new-zealand>. Accessed May 2020.
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