

Vegetarian Diets and Breastfeeding

A vegetarian or vegan mother does not need to take any special dietary precautions as long as she is maintaining a diet with adequate amounts of vitamin B₁₂, calcium and zinc. This is something that mom needs to do for herself, even if she is not breastfeeding.

If you are avoiding meat but eating **any** other type of animal protein (eggs, milk, cheese or other dairy products, fish, poultry) you will normally get enough vitamin B₁₂.

If, on the other hand, you are consuming no animal protein at all -- no fish, meat, poultry, eggs or dairy products -- you will need to make sure you get enough vitamin B₁₂ to prevent your baby (and you) from becoming deficient in this vitamin. Vitamin B₁₂ supplements and vitamin B₁₂ fortified foods are available. Supplementing your baby with vitamin B₁₂ is an option if you are vitamin B₁₂ deficient, but you would still need the vitamin B₁₂ for yourself (and if you're getting enough, baby won't need the supplement).

If you don't eat dairy products, check to make sure that you're getting sufficient calcium and zinc (this is for your health - baby will get enough of these minerals through your milk even if your diet is deficient). Pregnant and breastfeeding mothers do not need more calcium than normally required for their age group --the Dietary Reference Intake (DRI) for calcium for women aged 19-50 is 1000 mg per day. The DRI for zinc for breastfeeding mothers is 12 mg per day.

Who needs vitamin B₁₂ supplements?

Infants of well-nourished mothers with adequate vitamin B₁₂ intake do not need vitamin B₁₂ supplements.

It is recommended that mothers who do not eat animal proteins or who are otherwise at risk for vitamin B₁₂ deficiency get adequate amounts of vitamin B₁₂ during pregnancy and lactation via supplements or fortified foods.

Since vitamin B₁₂ (cobalamin) is widely present in foods from animal sources, dietary deficiency is rare except in those eating a strict vegan diet (no fish, meat, poultry, eggs or dairy products). Most infants, children and adults in the United States get the recommended amounts of vitamin B₁₂. If a breastfeeding mother has an adequate B₁₂ status, her baby will receive sufficient amounts of vitamin B₁₂ via her milk. A simple blood test can diagnose current vitamin B₁₂ deficiency.

In the US, the DRI for vitamin B₁₂ for adults is 2.4 µg per day, 2.6 µg during pregnancy, 2.8 µg during lactation; the DRI is proportionally less for children. The DRI has a significant margin of safety built in. Unlike other B vitamins, small amounts of vitamin B₁₂ are stored in the liver so daily consumption is not necessary.

Who is at risk for vitamin B₁₂ deficiency?

- Anyone who is on a strict vegetarian or vegan diet (no fish, meat, poultry, eggs or dairy products) and is not getting adequate amounts of vitamin B₁₂ through supplements or fortified foods.
- Anyone who has had gastric bypass surgery, has pernicious anemia or has certain gastrointestinal disorders and is not getting adequate amounts of vitamin B₁₂ through supplements or fortified foods. Some medications may also decrease absorption of vitamin B₁₂.
- An infant born to a mother who has been a strict vegetarian or vegan for at least 3 years and who is vitamin B₁₂ deficient herself.
- An infant born to a mother who is vitamin B₁₂ deficient due to any other dietary or medical reason.
- An exclusively breastfed baby of a woman who is vitamin B₁₂ deficient.

According to *Nutrition During Lactation* (Hamosh 1991, p. 157-58), a full-term infant of a well-nourished mother will be born with a store of vitamin B₁₂ sufficient to meet his needs for about 8 months. If the mother is not vitamin B₁₂ deficient herself, then her milk is an excellent source of vitamin B₁₂ and is more than sufficient for baby's needs through the first year.

There is evidence that babies born to vitamin B₁₂ deficient mothers have low stores of vitamin B₁₂ at birth. Studies have shown that mothers who are vitamin B₁₂ deficient have low levels of vitamin B₁₂ in their milk.

Breastfed infants may develop clinical signs of vitamin B₁₂ deficiency before their mothers do. Vitamin B₁₂ deficiency may develop in the breastfed infant by 2 – 6 months of age, but may not be clinically apparent until 6 – 12 months. Signs and symptoms of vitamin B₁₂ deficiency in infants include vomiting, lethargy, anemia, failure to thrive, hypotonia (low muscle tone), and developmental delay/regression.

For mothers who are vitamin B₁₂ deficient, increasing vitamin B₁₂ intake increases the amount of the vitamin in her milk.

For more information and references, see www.kellymom.com/nutrition/

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