

Vitamin B12 on a Plant-Based Diet

- Don't neglect vitamin B12.** It's an essential nutrient that everybody needs. It is important that people on plant-based diets are aware of how to obtain it as it is not reliably found in plant foods.
- Don't take risks with vitamin B12.** Not getting enough vitamin B12 can have serious health consequences including nerve damage (which can cause paralysis, blindness, etc.), mental health problems, gastrointestinal problems, memory loss, and many other health issues. Simply avoiding deficiency is not enough, as having suboptimal levels of B12 can increase the risk of sudden death from cardiovascular disease.
- Take extra care when pregnant or breastfeeding.** A deficiency of vitamin B12 in infants can result in developmental delay, growth failure, intellectual disability, seizures and death. It is vital for pregnant and lactating women to ensure they have an adequate daily intake of vitamin B12 and it is recommended that infants are supplemented directly by age 4-6 months.
- Take special care with infants.** Vitamin B12 is essential for brain development. It is recommended that infants being weaned onto a vegan diet be supplemented with vitamin B12 from 4-6 months of age (5 mcg daily) and daily throughout childhood (25-50 mcg).
- Don't rely on serum B12 levels.** They are not a reliable measure of B12 status and irreversible damage to your health could have occurred by the time a deficiency is detected. (MMA is the most reliable test of vitamin B12 status).
- Start supplementing when you adopt a plant-based diet.** Vitamin B12 is stored in the liver, but it is NOT correct to assume that stores from prior intake will last for years or even months. It is best to start supplementing when adopting a plant-based diet.
- Don't rely on so called plant food sources of vitamin B12.** Spirulina, mushrooms, chlorella, seaweed, unwashed vegetables, etc. are NOT reliable forms of vitamin B12. Some foods have added B12, but the amounts added are low and it is safer and cheaper to take a supplement.
- Choose the appropriate form of vitamin B12 to take.** The recommended form for most people is cyanocobalamin, as it is the most stable and is readily converted to the two active forms that our bodies use. The active forms are not as stable and supplementing with only one of these (such as methylcobalamin or adenosylcobalamin alone) may not be adequate. People who smoke or have kidney disease should take the hydroxocobalamin form of B12.
<https://www.nature.com/articles/ejcn2014165.pdf>
- Don't rely on multivitamins or prenatal supplements for vitamin B12.** Taking a single nutrient supplement is recommended as some other nutrients in supplements can inactivate vitamin B12.
- Make sure you are supplementing frequently enough.** Smaller doses are more often the more effective than less frequent large doses for most people. We recommend at least twice a week for most people and daily during pregnancy and lactation and for growing children.
- Make sure you are taking a high enough dose.** At least 50-200mcg per day (or 2000mcg per week) is recommended for most adults, but higher doses may be required for pregnancy, lactation, people over 50, people with impaired gut function and those taking certain medications.
- Seek professional advice if unsure.** Having a healthy plant-based eating pattern is one of the best steps you can take for not only your own health, but for the earth and all its inhabitants, but everyone on plant-based diets should supplement with vitamin B12.

For more information, a comprehensive review of vitamin B12 can be found at: <http://www.mdpi.com/2072-6643/8/12/767>

The information here is of general nature and is not intended to replace individualised dietary advice from an Accredited Practising Dietitian.
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