

7 Supplements You May Need on a Vegan Diet



Vegan rice and garbanzo beans meals. Ella Olsson / Pexels

By Alina Petre, MS, RD | [EcoWatch](#)

One common concern about vegan diets is whether they provide your body with all the vitamins and minerals it needs.

Many claim that a whole-food, plant-based diet easily meets all the daily nutrient requirements.

Some even encourage vegans to avoid all supplements.

Despite being well intended, this type of advice can do more harm than good.

Here are 7 nutrients that you may need to supplement with while on a vegan diet.

1. Vitamin B12

Foods often touted to be [rich in vitamin B12](#) include unwashed organic produce, mushrooms grown in B12-rich soils, nori, spirulina, chlorella, and nutritional yeast.

Some believe vegans who eat enough of the right plant foods don't need to worry about vitamin B12 deficiency. However, there is no scientific basis for this belief.

Several studies show that while anyone can have low vitamin B12 levels, vegetarians and vegans have a higher risk of deficiency. This seems especially true for vegans who are not taking any supplements ([1Trusted Source](#), [2Trusted Source](#), [3Trusted Source](#)).

Vitamin B12 is important for many bodily processes, including protein metabolism and the formation of oxygen-transporting red blood cells. It also plays a crucial role in the health of your nervous system ([4Trusted Source](#)).

Too little vitamin B12 can lead to anemia and nervous system damage, as well as infertility and bone and heart disease ([4Trusted Source](#), [5Trusted Source](#), [6Trusted Source](#)).

The [daily recommended intake](#) is 2.4 mcg per day for adults, 2.6 mcg per day during pregnancy, and 2.8 mcg per day while breastfeeding.

The only scientifically proven way for vegans to reach these levels is by consuming B12-fortified foods or taking a vitamin B12 supplement. B12-fortified foods commonly include plant milks, soy products, breakfast cereals, and nutritional yeast.

Some plant foods seem to contain a form of vitamin B12 naturally, but there's still debate on whether this form is active in humans ([7Trusted Source](#), [8Trusted Source](#), [9Trusted Source](#), [10Trusted Source](#), [11Trusted Source](#), [12Trusted Source](#), [13Trusted Source](#)).

What's more, no scientific evidence supports depending on unwashed organic produce as a reliable source of vitamin B12.

[Nutritional yeast](#) only contains vitamin B12 when fortified. However, vitamin B12 is light-sensitive and may degrade if bought from or stored in clear plastic bags ([14](#)).

It's important to keep in mind that vitamin B12 is best absorbed in small doses. Thus, the less frequently you ingest vitamin B12, the more you need to take.

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Summary

It's extremely important that all vegans get enough vitamin B12. The only reliable way to achieve this is by eating fortified foods or taking a vitamin B12 supplement.

2. Vitamin D

[Vitamin D](#) is a fat-soluble vitamin that helps enhance the absorption of calcium and phosphorus from your gut ([17Trusted Source](#)).

This vitamin also influences many other bodily processes, including immune function, mood, memory, and muscle recovery ([18](#), [19Trusted Source](#), [20Trusted Source](#), [21Trusted Source](#)).

The recommended daily allowance (RDA) for vitamin D for children and adults is 600 IU (15 mcg) per day. The elderly, as well as pregnant or lactating women, should aim for 800 IU (20 mcg) per day ([22](#)).

That said, some evidence suggests that your daily requirements

are far greater than the current RDA ([23Trusted Source](#)).

Unfortunately, very few [foods naturally contain vitamin D](#), and foods fortified with vitamin D are often considered insufficient to satisfy the daily requirements.

This could partly explain the worldwide reports of [vitamin D deficiency](#) among vegans and omnivores alike ([19Trusted Source](#), [24Trusted Source](#)).

Aside from the small amount you get from your diet, vitamin D can be made from sun exposure. Most people likely make enough vitamin D by spending 15 minutes in the midday sun when the sun is strong – as long as they don't use any sunscreen and expose most of their skin.

However, the elderly, people with darker skin, those who live in northern latitudes or colder climates, and those who spend little time outdoors may be unable to produce enough ([25Trusted Source](#), [26Trusted Source](#), [27Trusted Source](#)).

Furthermore, because of the known negative effects of excess UV radiation, many dermatologists warn against using sun exposure to boost vitamin D levels ([28Trusted Source](#)).

The best way vegans can ensure they're getting enough vitamin D is to have their blood levels tested. Those unable to get enough from fortified foods and sunshine should consider taking a daily vitamin D2 or [vegan vitamin D3 supplement](#).

Although vitamin D2 is probably adequate for most people, some studies suggest that vitamin D3 is more effective at raising blood levels of vitamin D ([29Trusted Source](#), [30Trusted Source](#)).

Summary

Vitamin D deficiency is a problem among vegans and omnivores alike. Vegans unable to maintain normal blood levels through fortified foods and sun exposure should consider taking a

supplement.

3. Long-Chain Omega-3s

[Omega-3 fatty acids](#) can be split into two categories:

- **Essential omega-3 fatty acids:** Alpha-linolenic acid (ALA) is the only essential omega-3 fatty acid, meaning you can only get it from your diet.
- **Long-chain omega-3 fatty acids:** This category includes eicosapentaenoic acid (EPA) and [docosahexaenoic acid](#) (DHA). They are not considered essential because your body can make them from ALA.

Long-chain omega-3 fatty acids play a structural role in your brain and eyes. Adequate dietary levels also seem important for brain development and reducing the risk of inflammation, depression, breast cancer, and attention deficit hyperactivity disorder (ADHD) ([31Trusted Source](#), [32Trusted Source](#), [33Trusted Source](#), [34Trusted Source](#), [35Trusted Source](#), [36Trusted Source](#)).

Plants with a high ALA content include flax seeds, chia seeds, walnuts, hemp seeds, and soybeans. EPA and DHA are mostly found in animal products like fatty fish and fish oil.

Getting enough ALA should theoretically maintain adequate EPA and DHA levels. However, studies estimate that the conversion of ALA to EPA may be as low as 5–10%, while its conversion to DHA may be near 2–5% ([37Trusted Source](#), [38Trusted Source](#)).

Additionally, research consistently shows that vegetarians and vegans have up to 50% lower blood and tissue concentrations of EPA and DHA than omnivores ([39Trusted Source](#)).

Most health professionals agree that 200–300 mg per day should be sufficient ([39Trusted Source](#)).

Vegans can reach this recommended intake by supplementing with algae oil.

What's more, minimizing your intake of omega-6 fatty acids from oils, including corn, safflower, sunflower, and sesame oils, as well as making sure to eat enough ALA-rich foods, may further help maximize EPA and DHA levels ([40Trusted Source](#)).

Summary

Vegans tend to have lower blood and tissue levels of long-chain omega-3 fatty acids. Therefore, they may benefit from supplementing with EPA and DHA.

4. Iodine

Getting enough iodine is crucial for healthy thyroid function, which controls your metabolism.

An [iodine deficiency](#) during pregnancy and early infancy can result in irreversible intellectual disability ([41Trusted Source](#)).

In adults, insufficient iodine intake can lead to [hypothyroidism](#).

This can cause various symptoms, such as low energy levels, dry skin, tingling in your hands and feet, forgetfulness, depression, and weight gain ([41Trusted Source](#)).

Vegans are considered at risk of iodine deficiency, and studies report that vegans have up to 50% lower blood iodine levels than vegetarians ([42Trusted Source](#), [43Trusted Source](#)).

The RDA for adults is 150 mcg of iodine per day. Pregnant women should aim for 220 mcg per day, while those who are breastfeeding are recommended to further increase their daily intake to 290 mcg per day ([44](#)).

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