

Dr. Greger's B12 recommendation:

At least 2,000 mcg (µg) cyanocobalamin once each week, ideally as a chewable, sublingual, or liquid supplement taken on an empty stomach



50 mcg

OR... at least 50 mcg daily of supplemental cyanocobalamin



OR... servings of B12-fortified foods three times a day, each containing at least 190% of the Daily Value listed on the nutrition facts label if you are based in the US (for nutrition facts labels outside of the US, each serving should contain at least 4.5mg).

“Vitamin B12 deficiency is not to be messed around with, with the potential to cause a wide range of disorders of the gut, blood, brain, and nervous system.”

Everybody needs a regular, reliable source of vitamin B12. This is especially important for:

Those eating plant-based diets



Those who've had bariatric surgery (which can sometimes impair absorption)



Everyone older than age 50



What are the limitations of testing for signs of functional B12 deficiency, like getting your homocysteine or methylmalonic acid (MMA) level tested?

Though those are nearly always elevated in cases of B12 deficiency, there are rare cases of severe B12 deficiency manifesting with normal B12 levels in the blood, normal MMA levels, and normal homocysteine.



Optimal Dosage at Different Stages of Life

	Weaned Infants	Age 4 - 10	Adults	Pregnant and Breastfeeding Women	Over Age 65	Individuals with B12 Deficiency
Dose	5 mcg daily	25 mcg daily	50 mcg daily OR 2,000 mcg weekly	50 mcg daily OR 2,000 mcg weekly	1,000 mcg daily	1,000 mcg daily for at least 1 month
Notes		From age 11 they can start taking the same dosage as adults.	Watch the videos on the B12 topic page to learn why the weekly dose is 2,000 mcg and not 350 mcg (50x7)	Break up doses into 2 halves, taken separately, to boost absorption. Plant-based women should get checked throughout pregnancy and adjust supplementation as necessary.		

Healthiest Food Sources

If you don't want to take supplements, you'd have to eat three separate servings of B12-fortified foods, each containing at least 190% of the so-called "Daily Value" on the product's nutrition facts label.

The amount of nutritional yeast that would be necessary depends on the brand

Trader Joe's 1.5 tablespoons, 3 times a day	KAL 1 tablespoon, 3 times a day
Bob's Red Mill 1 tablespoon, 3 times a day	Lotus 1 teaspoon, 3 times a day
Red Star* 1 tablespoon, 3 times a day	Marigold Engevita 2 teaspoons, 3 times a day
NOW 2 teaspoons, 3 times a day	Anthony's Premium 1 teaspoon, 3 times a day
Bragg's 1 teaspoon, 3 times a day	Hoosier Hill Farm 1 teaspoon, 3 times a day

*Only some of Red Star's nutritional yeast varieties have any B12 at all. Some brands are explicitly unfortified, so you need to check the labels.

One serving a day of no-salt added [Leafside](#) meals, available in the US, would also work. Many other B12-fortified foods include plant-based meats and milks to breakfast cereals and energy drinks, but these are generally not [green light](#) sources (plant foods from which nothing bad has been added and nothing good has been taken away).



What about various algae-type products like spirulina?

The type of B12 they contain is not usable for humans, and they may contain B12 analogues—look-alike molecules—that can even block your absorption of real B12.

Why Cyanocobalamin?

Cyanocobalamin has a track record of safety and efficacy, as opposed to the more expensive kinds.

Take separately as a chewable, sublingual, or liquid supplement.



► **Why not as part of a multivitamin?** Various vitamins and minerals mixed into the same pill can "destroy" active B12, forming B12 analogues, B12-look-alikes that not only can our body not use, but the analogues can inhibit the transport of what little B12 is left.

► **Absorption is boosted** when the B12 mixes with saliva.

Methylcobalamin is less stable than cyanocobalamin, and it is particularly susceptible to destruction from being exposed to light.

Exception: Methylcobalamin may be better for those with impaired kidney function. Since methylcobalamin is less stable, you'd probably want to take much higher doses and get tested regularly.

Do Vitamin B12 Supplements Cause Acne?

1 in 10 people erupt in acne within days or even within hours of getting an injection of vitamin B12. Taken orally, acne tends to occur only in dosages in excess of 5,000 to 10,000 mcg a week—in excess of dosage recommendations, unless treating a deficiency.



Do Vitamin B12 Supplements Cause Cancer?

Observational studies have suggested an association between lung cancer risk and higher circulating levels of B12, but when put to the test in randomized controlled trials, thousands of people taking up to 2,000 mcg of B12 every single day for years shows vitamin B supplementation does NOT have an effect on getting cancer (including lung cancer), or dying from cancer.