Vitamin B12

Why is vitamin B12 important?

Vitamin B12 is an essential micronutrient with several key roles in maintaining overall health and wellbeing. It helps to speed up chemical reactions in the body, aids in the production of red blood cells, is essential to maintaining a healthy nervous system, and helps to release energy from the food you eat.

Common symptoms and signs of a vitamin B12 deficiency include digestive problems, anaemia, a sore tongue, loss of appetite, muscle weakness, blurred vision, and fatigue. Some people may also experience neurological symptoms such as tingling in the hands or feet, poor memory, confusion, and personality changes.

Symptoms of deficiency are usually reversible with vitamin B12 administration; however, some effects may become irreversible if left untreated for a long time.

It is important to speak with your healthcare professional if you have any concerns about a vitamin B12 deficiency to ensure your nutritional needs are met and your nervous system remains healthy.

Where do vegans get vitamin B12?

Vitamin B12 is made by microorganisms and is the only essential micronutrient that is not found naturally in any plant-based foods. Vegans can get vitamin B12 from:

- fortified foods
- a micronutrient supplement

Claims that vitamin B12 is found in certain plant foods like algae, spirulina, seaweed, sea buckthorn, or barley grass are unsupported. Some of these actually contain 'false B12,' which can disrupt B12 metabolism.

The only reliable way for people on a fully plant-based diet to consume vitamin B12 is to eat foods fortified with vitamin B12 or to take a supplement.

How much B12 do you need?

The recommended daily requirement for vitamin B12 for adults in the UK is 1.5mcg (micrograms)[1].

However, vitamin B12 is absorbed best in small, frequent amounts. This means the total amount you need depends on how often you consume it. That's why the recommended supplement dose is higher than the amount in fortified foods.

You could choose to:

- eat fortified foods two to three times daily to get at least 3mcg per day
- take a daily B12 supplement containing at least 10mcg
- take a weekly B12 supplement containing at least 2000mcg

It is perfectly fine to combine more than one of these options to meet your vitamin B12 needs. There is no established upper limit for vitamin B12 intake because any excess is safely excreted in urine[2,3]. However, it is recommended to avoid taking supplements that provide more than 2000mcg daily[3].

Guidelines for children are outlined in our information about different **life stages**.

Which vegan foods contain vitamin B12?

Fortified nutritional yeast is used by many vegans to increase their B12 intake and can be used in various vegan dishes. Fortified breakfast cereals, fortified plant milks, fortified plant spreads and yeast extracts can form part of a balanced vegan diet and are also sources of vitamin B12 for vegans[4].

A note for people taking VEG 1

If you take The Vegan Society's VEG 1 supplement, you can enhance vitamin B12 absorption by splitting the tablet and taking half with one meal and the other half at least four hours later. This method helps match the B12 levels typically found in omnivorous diets. However, splitting the tablet is not essential if you regularly consume fortified foods throughout the day.

Which is the best type of vitamin B12?

You may notice that supplements contain different types of vitamin B12. Cyanocobalamin is the recommended form of vitamin B12 because it is the most shelf stable, economical, widely available and well researched. Your body can convert cyanocobalamin into the two active forms of B12: methylcobalamin and adenosylcobalamin.

A very small percentage of people may have difficulty converting cyanocobalamin to methylcobalamin due to a genetic mutation affecting the responsible enzyme. If you suspect your B12 levels aren't improving with cyanocobalamin supplements, consult your healthcare provider for personalised advice.

Vitamin B12 tips to take away

- Ensure that your vegan diet follows The Vegan Society guidelines about reliable vegan sources of vitamin B12, including fortified foods and/or taking a reliable supplement.
- We recommend that you seek advice from a health professional if you think you may have a vitamin B12 deficiency.

Further information

You might be interested in checking out the following webpages:

- **What every vegan should know about vitamin B12** – an essential resource on vitamin B12 for a healthy vegan diet, endorsed by nutrition and health professionals.
- **What's a safe source of vitamin B12?** – a detailed blog explaining why fortified foods and reliable supplementation are the safest and most effective sources of vitamin B12 for a balanced vegan diet.
- **Nutrition overview** – essential information to help you maintain a balanced and varied vegan diet, ensuring you receive all the key nutrients your body needs.

The Vegan Society, 2026
Next review due: June 2029

References

1. Committee on Medical Aspects of Food and Nutrition. *Dietary Reference Values for Food Energy and Nutrients for the United Kingdom* London: HMSO; 1991
2. European Food Safety Authority Panel on Dietetic Products, Nutrition, and Allergies. *Scientific Opinion on Dietary Reference Values for Cobalamin (Vitamin B12)* 2015 https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2015.4150 (accessed 29 June 2026)
3. NHS. *B Vitamins and folic acid.* 2020 https://www.nhs.uk/conditions/vitamins-and-minerals/vitamin-b/ (Accessed 29 June 2026)
4. One Blue Dot. A practical guide for dietitians. *Other sources of B12.* 2020 https://www.bda.uk.com/static/5378b751-58bd-4e85-b15b360d8165a3f8/Practical-guide-other-sources-of-B12.pdf (Accessed 29 June 2026)