

# Vitamin B<sub>12</sub>: A Simple Solution

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The vegan diet, rich in fruits, vegetables, whole grains, and legumes, provides an abundance of vitamins and minerals to meet one's nutritional needs. However, there is one vitamin, called vitamin B<sub>12</sub>, which does present a genuine nutritional issue, although one that is easily solved.

When vitamin B<sub>12</sub>, which is produced by bacteria and other one-celled organisms in the small intestines of animals, is made by humans, it is not well absorbed and retained. Found mainly in animal products, small amounts may be found in plant products due to bacterial contamination.<sup>1,2</sup> However, these plant and fermented foods, such as spirulina, sea vegetables, tempeh, and miso, do not provide an active and reliable source,<sup>3</sup> so vitamin B<sub>12</sub> must be obtained elsewhere in the diet.

For individuals following a diet free of all animal products, vitamin B<sub>12</sub> needs can easily be met by consuming a variety of vegan foods. Fortified breakfast cereals, fortified soymilk, and fortified meat analogues contain a reliable source of the vitamin.<sup>4</sup> Nutritional yeast, such as Red Star Vegetarian Support Formula, is also a reliable source. Be sure to check the Nutrition Facts Label or the ingredient list to ensure you are receiving the active form of vitamin B<sub>12</sub>, called cobalamin or cyanocobalamin. Most common multivitamins, from Flintstones to One-A-Day to Stress Tabs, also contain B<sub>12</sub>.

Regular intake of vitamin B<sub>12</sub> is important to meet one's nutritional needs. The recommended dietary allowance in adults is 2.4 micrograms per day, with increased requirements for women who are pregnant or breastfeeding.<sup>5</sup> Ensuring that vitamin B<sub>12</sub> needs are met as one ages becomes even more critical, as deficiencies are common among the elderly.<sup>6,7</sup> Symptoms of deficiency may include fatigue, weakness, tingling in the arms and legs, digestive disturbances, and a sore tongue, and may lead to anemia and more serious disorders of the blood and nervous system.<sup>5</sup>

Listed below are common sources of vitamin B<sub>12</sub> in the vegan diet. Be sure to check nutrition labels as products may vary.

## Common Sources of B<sub>12</sub> in a Vegan Diet

	<u>Serving</u>	<u>Amount</u>
Total cereal	¾ cup	6.0 mcg
Product 19 cereal	1 cup	6.0 mcg
Kellogg's Corn Flakes	¾ cup	1.5 mcg
Grape-Nuts cereal	½ cup	1.5 mcg
Edensoy Extra Soymilk	1 cup	3.0 mcg
Meat analogues	varies	2-7 mcg
Nutritional yeast (Red Star Vegetarian Support Formula, formerly T-6635+)	1 tablespoon	4.0 mcg

Sources: Pennington JAT. Bowes and Church's Food Values of Portions Commonly Used. Lippincott, New York, 1998. VMessina V and Messina M. The Vegetarian Way. Crown Trade Paperbacks, New York, 1996.

## References

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