

Iodine and selenium are both slightly challenging minerals. Too much or too little can cause problems. Also, the amount of iodine and selenium in plant crops varies geographically, depending upon the mineral content of the soil and water. Consider a daily supplement for iodine, and for selenium, so that you know you are getting just the right amount of each.

Iodine

Why it's important

Iodine is an essential component of thyroid hormones (triiodothyronine, or T3, and thyroxin(e) or T4) which influence most of the organ systems in the body. Iodine is essential for energy metabolism. Iodine deficiency can result in depressed metabolic function also known as hypothyroidism. Excess iodine can be toxic. Iodine deficiency is an issue in some parts of Europe, Africa, North America and Asia.

Iodine can be provided by supplements or iodised salt.

Recommend intake

The adult Recommended Daily or Dietary Allowance (RDA) is 150 mcg (microgram) of iodine per day. Excess iodine can be toxic; the tolerable upper intake level is set at 1,100 mcg of iodine per day (unless medically prescribed). The BDA – the Association of UK Dietitians says that, "As a guide, adult intakes should not exceed 600 mcg per day..." for safety.

Iodine intake and thyroid status

An iodine intake of less than 20 mcg (microgram) per day is considered severe deficiency, 20-50 mcg per day is considered moderate deficiency and 50-100 mcg per day is considered mild deficiency.

General guidelines, issued by The Vegan Society. If you have any health problem which you feel may be connected to diet, your doctor should refer you to a qualified expert such as a Registered Dietitian. Prepared: 2015/06 TH. Last reviewed: 2015/06/24 ACB & LMB. Next review: 2018/06.

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Iodine is typically undesirably low (about 50 mcg per day compared to a recommended level of about 150 mcg per day) in vegan diets **unless supplements such as [VEG1](#) or iodised salt are consumed**. Sea vegetables can have too much iodine, and be contaminated with toxins. The BDA says, "Do not use seaweed or kelp supplements as an iodine source..." because of these uncertainties. The low iodine levels in many plant foods reflects the low iodine levels in many soils. In many countries, iodised salt is widely used and some other foods are fortified with iodine. For example, at the time of writing, in Canada all table salt is iodised but in the UK most salt is not iodised..

Selenium

The Recommended Daily or Dietary Allowance (RDA) of selenium is 55 mcg (microgram).

Why it's important

Selenium is used to build powerful antioxidant enzymes which protect cells from damage, reducing the risk of cancer and heart disease. Studies of vegans in the UK, Germany, United States, and New Zealand showed them to meet recommended selenium intakes¹.

Recommend intake

Dietary advice to ensure adequate levels of selenium should be tailored to individual needs and circumstances. It is important to remember that selenium is toxic in excess. Avoid supplements with more than the RDA. Don't eat more than 3 or 4 Brazil nuts in a day, as intake can be conveniently assured by 100 grams of Brazil nuts per month.

Sources of selenium

Brazil nuts are the most reliable food source of selenium for vegans, as the soils where they are grown tend to have good selenium levels.

References

1. Davis, B, Vesanto, M, [2014] *Becoming Vegan: Comprehensive Edition*, Summertown, TN, The Book Publishing Company.

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