



Vegetarian Nutrition

a dietetic practice group of the
eat right. Academy of Nutrition and Dietetics
Experts in Plant-Based Nutrition

RDN Resources for Consumers:

Zinc in Vegetarian Diets

The Basics of Zinc

Zinc is an important mineral for maintaining a healthy immune system, mental alertness, healing wounds, and proper growth in children. Because zinc is not stored in the body long-term, it is important to get enough in the diet daily.

Zinc Requirements and Deficiency

The Recommended Dietary Allowance (RDA) for zinc is 11 mg for adult men and 8 mg for adult non-pregnant, non-lactating women. The Daily Value for zinc on food labels recently changed from 15 mg to 11 mg for individuals 4 years and older.

Most American adults have adequate zinc intakes, although older adults living in poverty sometimes do not.

Most vegetarians in developed countries who are not impoverished should have adequate zinc status, but if symptoms of deficiency are present, status should be assessed. Mild deficiency can present as impaired growth in children, loss of appetite, and impaired immunity. More severe deficiency can cause weight loss, delayed wound healing, taste and smell abnormalities, and mental fatigue. There

is no laboratory test for mild zinc deficiency. Instead, health professionals must consider a variety of factors to diagnosis this, including diet and deficiency symptoms.

How to Increase Zinc Absorption from Plant-Based Diets

- Soak and sprout beans, grains, and seeds, and use grain products that rise (e.g. bread vs. crackers) to reduce phytates which lower the body's ability to absorb zinc.
- Choose fermented soy foods (e.g. tempeh and miso) to enhance zinc absorption.
- Supplement to address zinc deficiency. A medical professional or dietitian can determine if a zinc supplement is needed but always avoid taking a supplement of more than the tolerable upper intake level (UL) of 40 mg per day.

Pregnancy, Infants, and Children

Many pregnant people including vegans and vegetarians often do not consume enough zinc, but it's uncertain whether the body makes up for this through adapted zinc metabolism. Pregnant people should strive to meet the RDA of 11 mg/day.

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| Grains (mg) | Legumes (mg) | Nuts & Seeds (mg) | Miscellaneous (mg) |
|-----------------------------|--------------------------------|-------------------------------|-------------------------------|
| Corn, 1 cup = 1.03 | Black beans, ½ cup cooked = 1 | Pumpkin seeds, 1/4 cup = 2.75 | Nutritional yeast, 1 Tbsp = 1 |
| Oatmeal, 1 cup cooked = 2.4 | Green peas, ½ cup = 1 | Cashews, ¼ cup = 1.8 | |
| Rice Chex, 1 cup = 3.75 | Lentils, ½ cup cooked = 1.25 | Walnuts, ¼ cup chopped = 1 | |
| Wheat germ, 2 Tbsp = 1.2 | Chickpeas, ½ cup cooked = 1.25 | | |
| Total, 1 cup = 20 | | | |

Breast milk provides enough zinc (2 mg/day) for the first 4–6 months of life but does not provide the recommended 3 mg/day of zinc for infants aged 7–12 months. Thus, foods with zinc (fortified or naturally occurring) should be introduced by 7 months.

Zinc deficiency does not appear to be common among vegetarian or vegan children in industrialized countries today. Vegetarian children who grow slowly should be assessed for zinc intake and status.

Zinc Content of Common Foods

Many foods contain zinc and good sources provide at least 1-2 mg per serving.

Summary

It is important for vegetarians to eat zinc-rich foods daily, with special attention during times of increased need, like pregnancy. A registered dietitian nutritionist or other health professional may be consulted. If a health professional suspects zinc deficiency, they may suggest a modest zinc supplement.