



## Vegetarian Nutrition

a dietetic practice group of the  
**eat right.** Academy of Nutrition and Dietetics

### RDN Resources for Consumers:

# Zinc in Vegetarian Diets

## The Basics of Zinc

Zinc is an important mineral for maintaining a healthy immune system and 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 will likely change from 15 mg to 11 mg for individuals 4 years and older and may be implemented by January 2020.

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

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. 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.

## How to Increase Zinc Absorption from Plant-Based Diets

- Soak and sprout beans, grains, and seeds, and using 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 women 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 women should strive to meet the RDA of 11 mg/day.

Zinc deficiency does not appear to be common among vegetarian or vegan children in industrialized countries today.

Breast milk provides enough zinc (2 mg/day) for the first 4–6 months of life but does not provide 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. Vegetarian children who grow slowly should be assessed for zinc intake and status.

## 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, he/she may suggest a modest zinc supplement.

A registered dietitian nutritionist can help you develop a healthy vegetarian eating plan that meets your needs. To find an RDN in your area, visit <https://vegetariannutrition.net/find-a-registered-dietitian/>

## References

1. Zinc: Fact Sheet for Health Professionals. National Institutes of Health. Office of Dietary Supplements. <http://ods.od.nih.gov/factsheets/Zinc-HealthProfessional/#en2>. Updated Sept 26, 2018.
2. Melina V, Craig W, Levin, S. Position of the Academy of Nutrition and Dietetics: Vegetarian Diets. *J Acad Nutr Diet*. 2016 Dec;116(12):1970-1980.

## Zinc Content of Common Foods

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

### Grains (mg)

Corn, 1 cup = **3.7**

Oatmeal, 1 cup cooked = **2.4**

Rice Chex, 1 cup = **3.75**

Wheat germ, ¼ cup = **3.5**

Total, ¾ cup = **15**

### Legumes (mg)

Black beans, ½ cup = **1**

Green peas, ½ cup = **1**

Lentils, ½ cup cooked = **1.25**

Chickpeas, ½ cup cooked = **1.25**

### Nuts & Seeds (mg)

Pumpkin seeds, 1 oz = **1.8**

Cashews, ¼ cup = **1.6**

Walnuts, ¼ cup chopped = **1**

### Miscellaneous (mg)

Nutritional yeast, 1 Tbsp = **1**

Zinc: Fact Sheet for Health Professionals. National Institutes of Health. Office of Dietary Supplements. Rev June 05, 2013. <http://ods.od.nih.gov/factsheets/Zinc-HealthProfessional/#en2>