

Zinc

Why We Need It

Zinc, a mineral found in almost every cell in our bodies, is needed for hundreds of chemical reactions. It keeps our immune system healthy and helps with normal use of vitamin A and normal cell replacement.

Zinc is needed for normal growth and development, making it critical that pregnant women and children get enough of it in their diets. This mineral also helps the body use carbohydrates, proteins, fats.

Recommended Daily Intakes of Zinc

	Age	Zinc (mg/day)	
Infants	birth–6 months	2	
	6 months–1 year	3	
Children	1–3 years	3	
	4–8 years	5	
Males	9–13 years	8	
	14 years and over	11	
Females	9–13 years	8	
	14–18 years	9	
	19 years and over	8	
	pregnant	≤ 18	12–13
		19–50	11
	breastfeeding	≤ 18	14
19–50		12	

mg = milligrams

Sources: Information adapted from the Dietary Reference Intakes series, National Academies Press. Copyright 1997, 1998, 2000, 2001, 2002, 2004, by the National Academies of Sciences. Also, from the American Dietetic Association *Complete Food and Nutrition Guide, 3rd Edition*. 2006.

Sources

The best sources of zinc are animal foods, because the body can absorb it easily. This includes meat, seafood, poultry, and liver. Milk, eggs, beans, nuts, and some fortified cereals supply zinc in smaller amounts. Although whole-grains products, wheat germ, black-eyed peas, and fermented soybean paste (miso) also contain zinc, the body cannot absorb it as well from these sources.

Sources of Zinc

Food	Zinc (mg per serving)
oysters, cooked, 3 oz	75
crab meat, cooked, 3 oz	7
beef chuck, lean, cooked, 3 oz	7
wheat germ, ¼ cup	4.7
fortified cereals, 1 cup	3 to 4
chicken leg, cooked, 3 oz	3
baked beans, canned, ½ cup	2
wheat bran, ½ cup	2
milk, fat-free, 1 cup	1
black-eyed peas, frozen, boiled, ½ cup	1
almonds, 1 oz	1
peanut butter, 2 tbsp	0.9
tuna, canned, packed in water, 3 oz	0.7
egg, large, 1	0.6
whole wheat bread, 1 slice	0.5

mg = milligrams
oz = ounces
tbsp = tablespoon

Vegetarians should eat a varied diet that includes zinc-enriched cereals or whole-grain breads leavened with yeast to help with zinc absorption.

If We Don't Get Enough

A zinc deficiency during pregnancy can cause birth defects. A deficiency in children can reduce growth and delay sexual maturation. Not getting enough zinc also can affect the immune system, making the body less resistant to infections.

A severe deficiency can cause diarrhea, hair loss, abnormal taste, poor appetite, and skin disorders. Drinking too much alcohol puts people at high risk for zinc deficiency and other health problems.

If We Get Too Much

Zinc in foods is nontoxic, but zinc supplements can reach toxic doses. Teens (ages 14-18) have a Tolerable Upper Intake Level (UL) for zinc of 34 milligrams daily, while adults have a UL of 40 milligrams a day.

Consuming too much zinc from dietary supplements can cause harmful side effects, such as reduced absorption of copper and iron. High doses of zinc also may reduce HDL cholesterol, the beneficial high-density lipoproteins in the blood, and create a risk for heart disease.

Supplements

Zinc is usually included in multivitamin supplements along with other minerals. These supplements can be used by people who may not get enough zinc in their diets. A zinc supplement may be beneficial to people 51 years of age and older, pregnant women, and women who are breastfeeding.

Zinc lozenges and sprays may decrease the duration of colds. However, more research needs to be done to confirm this.

For More Information

The Family and Consumer Sciences (FCS) agent at your county Extension office may have more written information and nutrition classes for you to attend. Also, your doctor, health care provider, or a registered dietitian (RD) can provide reliable information.

Reliable nutrition information may be found on the Internet at the following sites:

<http://hgic.clemson.edu>
<http://virtual.clemson.edu/groups/NIRC/>
<http://www.eatright.org>
<http://www.nutrition.gov>
<http://www.nal.usda.gov/fnic>

Sources:

1. Bobroff, Linda B. University of Florida Extension. *Facts About Zinc*. FCS8705. January 2006.
<http://edis.ifas.ufl.edu/publications.html>
2. Duyff, Roberta Larson. American Dietetic Association *Complete Food and Nutrition Guide, 3rd Edition*. 2006.
- 3.Sizer, Frances and Eleanor Whitney. *Nutrition Concepts and Controversies, Tenth Edition*. 2006.
4. National Academies of Sciences. National Academies Press. *Dietary Reference Intakes series*. 2004.

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