

Center for Integrative Medicine

Dietary Supplements: Zinc

The mineral, zinc, is essential for optimal function of the immune system, wound healing, senses of taste, smell and vision, maturation of the fetus and sperm, insulin and thyroid activity. Zinc is used to treat childhood malnutrition, acne, ADHD, peptic ulcers, leg ulcers, infertility, Wilson's disease, and taste or smell disorders, age-related macular degeneration, and to prevent and treat the common cold. Topically, zinc compounds are used to prevent sunburns, treat diaper rashes, dandruff, and cold sores and help reduce dental plaque. Human milk does not provide sufficient zinc for older infants between the ages of 7 months and 12 months, so breast-fed infants over 6 months old should also consume age-appropriate foods containing zinc or be given zinc supplements. Zinc is more easily absorbed from animal than plant foods.

Severe zinc deficiency causes acrodermatitis enteropathica (severe rash on hands, feet and diaper area; diarrhea). Milder deficiency causes poor growth, hair loss, diarrhea, eye and skin lesions, poor appetite, poor wound healing, mental sluggishness. Zinc deficiency occurs in 30% to 50% of alcoholics.

Zinc may improve the effectiveness of cholera vaccine, cisplatin, and erythromycin (when used for acne treatment). Zinc may decrease the effectiveness of fluoroquinolone antibiotics and decrease absorption of tetracycline, and minocycline.

Drugs that can INCREASE zinc levels: amiloride, chlorthalidone.

Drugs that can DECREASE zinc levels: alcohol, caffeine, ACE inhibitors, Captopril, deferoxamine, birth control pills, diuretics, erythromycin, penicillamine.

Dietary sources of zinc include: oysters, meat (especially dark turkey meat, liver and pork) beans, nuts (almonds), whole grains such as wheat germ; milk and yogurt; zinc-fortified cereal. See the US National Library of Medicine: <http://www.nlm.nih.gov/medlineplus/druginfo/natural/patient-zinc.html> and the Office of Dietary Supplements site: <http://ods.od.nih.gov/factsheets/cc/zinc.html>

US Recommended Daily Allowance (RDA) or Adequate Intake (AI for infants) for thiamin for

Children 1-3 years: 3 milligrams

Children 4-8 years: 5 milligrams

Children ages 9-13 years: 8 milligrams

Males ages 14-18: 11 milligrams

Females ages 14-18 years: 9 milligrams

Adults: 11 milligrams daily for males and 8 milligrams daily for females

Pregnant or breastfeeding women: 11-14 milligrams daily.

Doses used to treat illnesses such as acrodermatitis enteropathica range up to 200 – 300 mg daily for up to 2-3 months. Do not take doses greater than 40 milligrams daily without medical supervision.

Zinc is generally considered safe, but it can cause unpleasant taste, nausea, vomiting or diarrhea. Overdoses and chronic doses of 150 to 450 milligrams daily can cause anemia, low white blood cell counts, lower HDL levels, low iron levels, low copper levels, kidney problems, loss of sense of smell (after topical nasal use).

In 2006, *all* zinc products tested met quality testing standards set by ConsumerLab. For more information, see <http://www.consumerlab.com/results/zinc.asp> .

The brand of zinc used in studies showing a positive impact on the common cold was Cold-Eze All Natural Cherry (13.3 milligrams taken every two hours). Some patients report nausea with zinc lozenges.

www.wakehealth.edu/CIM - See Quick Link to Dietary Supplements