

Thiamin

Why We Need It

Thiamin, or vitamin B₁, is a water-soluble B vitamin. We need thiamin to use the carbohydrates we eat. It helps turn carbohydrates into energy for the body. The body also needs thiamin to use some of the amino acids that make up proteins.

Recommended Daily Intakes of Thiamin

	Age	Thiamin (mg/day)
Infants	birth–6 months	0.2
	6 months–1 year	0.3
Children	1–3 years	0.5
	4–8 years	0.6
Males	9–13 years	0.9
	14 years and over	1.2
Females	9–13 years	0.9
	14–18 years	1.0
	19 years and over	1.1
	pregnant	1.4
	breastfeeding	1.4

mg = milligrams

Source: adapted from the Dietary Reference Intakes series, National Academies Press. Copyright 1997, 1998, 2000, 2001, 2002, 2004, by the National Academies of Sciences.

Sources

The best sources of thiamin are enriched, fortified, or whole-grain breads, cereals, pasta, rice and tortillas. Thiamin is one of four vitamins added to enriched grain products. Look for the word “thiamin” in the ingredient list on the label to see if it has been added.

INGREDIENTS: Enriched semolina (iron, **thiamin** mononitrate, folic acid, riboflavin, niacin), tomato, beet and spinach powders, ...

Other good sources of thiamin are pork, legumes (beans and lentils), orange juice and sunflower seeds.

Sources of Thiamin

Food	Thiamin (mg per serving)
pork chop, cooked, 3 oz	0.8
ready-to-eat cereal, 1 cup	0.4
spaghetti, enriched, cooked, 1 cup	0.4
orange juice, 1 cup	0.3
wheat germ, ½ oz	0.3
rice, enriched, white, cooked, 1 cup	0.3
sunflower seeds, 2 oz	0.2
black beans, cooked, ½ cup	0.2
flour tortilla, enriched (1)	0.2
mg = milligrams oz = ounces	

Ways to Retain It

Do not rinse grains, such as rice, before cooking. Thiamin also can be lost from foods when they are cooked, especially if cooked in large amounts of water. However, many thiamin sources don't need to be cooked in water, so this isn't a major concern.

If We Don't Get Enough

A lack of thiamin causes the disease *beriberi*. People with beriberi have difficulty standing, walking, and controlling their muscles. This disease was common in the 1800s in Southeast Asian countries when people started eating white “polished” rice instead of brown rice. Removing the outer husks of rice removes most of the thiamin.

It's very easy to get enough thiamin in the diet these days, because it's added to processed grains.

However, people who abuse alcohol or have a very poor diet may suffer from a thiamin deficiency.

Supplements

Most people get plenty of thiamin in their diet, so supplements are usually not needed. Thiamin is included in most multivitamin supplements.

Research has not yet found problems from consuming too much thiamin from food or supplements. However, there is no need to take a supplement with more than 100 to 150% of the Daily Value for thiamin.

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. Turner, R. Elaine. University of Florida Extension. *Facts About Thiamin*. FCS8667. August 2006.
<http://edis.ifas.ufl.edu/publications.html>
2. National Academies of Sciences. National Academies Press. *Dietary Reference Intakes series*. 2004.

This information has been reviewed and adapted for use in South Carolina by Janis G. Hunter, HGIC Nutrition Specialist, and Katherine L. Cason, Professor, State Program Leader for Food Safety and Nutrition, Clemson University. (New 07/07.)

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