

## [Center for Integrative Medicine](#)

### **Dietary Supplements: Vitamin B1 (Thiamin)**

Vitamin B1 (Thiamin) was one of the first vitamins to be recognized as essential for human nutrition. Frank deficiency is known as beriberi. Wernicke’s encephalopathy and Korsakoff’s psychosis are serious brain disorders associated with thiamin deficiency. Thiamin is necessary for optimal function of the brain and nerves, stomach, muscles, and heart. Not much is stored in the body, and deficiency can occur within 14 days of inadequate intake.

Needs for thiamin may be increased in patients with certain genetic metabolic disorders (including pyruvate dehydrogenase deficiency, Leigh’s disease, and maple syrup urine disease) and acute alcohol withdrawal. Tobacco and alcohol use may also increase needs for vitamin B1.

Certain medications can also increase the need for thiamin. Medications that may increase thiamin needs include: antacids, barbiturates, diuretics, contraceptive pills, certain chemotherapy drugs for cancer, phenytoin (Dilantin®).

Dietary sources of thiamin include: beans, lentils, nuts, seeds, beef, pork, milk, oats, rice, whole grain cereals, oranges, yeast and Brewer’s yeast. Some processed foods are fortified with thiamin. See the US National Library of Medicine site for more information: <http://www.nlm.nih.gov/medlineplus/druginfo/natural/patient-thiamin.html>

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

- |   |                                       |
|---|---------------------------------------|
| Infants ages 0-6 months: 0.2 milligram                                      | Infants 7-12 months: 0.3 milligram    |
| Children 1-3 years: 0.5 milligram   | Children 4-8 years: 0.6 milligram     |
| Children ages 9-13 years; 0.9 milligram                                     |                                       |
| Males ages 14-18: 1.2 milligram   | Females ages 14-18 years: 1 milligram |
| Adults: 1.2 milligrams daily for males and 1.1 milligrams daily for females |                                       |
| Pregnant or breastfeeding women: 1.4 milligrams daily.                      |                                       |

Thiamin is generally considered safe and relatively nontoxic, even at high doses. No clear tolerable upper level (UL) of intake has been established. Large doses may cause drowsiness or muscle relaxation.

Usual dose in adult multivitamin preparations are 1 – 2 milligrams. Some B-complex vitamins contain 50 – 100 mg per serving. Most clinicians recommend that most patients who take supplements should take a B-complex or multivitamin rather than single B-vitamin. This is because patients whose diets are deficient in one B-vitamin are likely to be deficient in several B-vitamins and because some B vitamins have complementary effects.

The products listed below are a *selection* of some that have met quality testing standards set by ConsumerLab. For more information, see <http://www.consumerlab.com/results/vitaminb.asp?>

Product Name/Distributor	Capsule/Tablet Strength	Manufacturer/Distributor
<b>B1</b>	(milligrams = mg)	
Bluebonnet Vitamin B-1	100 mg	Bluebonnet Nutrition Corp.
<b>B-complex</b>		
GNC B- Complex 50	50 mg	General Nutrition Corp.
Natrol™ B-100 Complex	100 mg	Natrol, Inc
Now® B-50 Vitamin B-complex	50 mg	Now Foods
Puritan’s Pride B-50 and B-100 B-complex	50 and 100 mg	Puritan’s Pride

**[www.wakehealth.edu/CIM](http://www.wakehealth.edu/CIM) - See Quick Link to Dietary Supplements**