

Center for Integrative Medicine

Dietary Supplements: Vitamin B2 (Riboflavin)

Vitamin B2 (Riboflavin) is necessary for metabolism and healthy cell functioning throughout the body. Deficiencies can cause problems with the skin (rashes), swollen, red sore tongue, cracking at the corners of the mouth, weakness, fatigue, and anemia. Small amounts of riboflavin are stored in the liver, heart and kidneys.

Needs for riboflavin may be increased in certain people including the elderly, newborns with jaundice who need phototherapy, teens and adults with alcohol dependency, iron deficiency anemia, depressed patients, and those with poor nutrition (many of whom are deficient in other vitamins, too) and intense exercise. Evidence is mixed for the need for extra vitamin riboflavin for patients with anorexia, bulimia, cataracts, cognitive or mood problems, malaria, migraine headaches (400 mg daily) and a pregnancy condition called pre-eclampsia.

Certain medications can also increase the need for riboflavin. Medications that may increase riboflavin needs include: certain chemotherapy medications (doxorubicin and methotrexate), phenobarbital, phenothiazine medications (e.g. chlorpromazine), phenytoin (Dilantin®), chronic use of antibiotics, especially tetracycline, tricyclic antidepressants, thiazide diuretics.

Dietary sources of riboflavin include: meat, liver, milk (and dairy products), eggs, whole grains and green vegetables (asparagus, broccoli). Some processed foods are fortified with riboflavin.

For more information about riboflavin, see the National Library of Medicine:
<http://www.nlm.nih.gov/medlineplus/druginfo/natural/patient-riboflavin.html>

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

Infants ages 0-6 months: 0.2 milligram	Infants 7-12 months: 0.4 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: 1.3 milligram	Females ages 14-18 years: 1 milligram
Adults: 1.3 milligrams daily for males and 1.1 milligrams daily for females	
Pregnant or breastfeeding women: 1.4 milligrams daily.	

Riboflavin is generally considered safe even at high doses. No clear tolerable upper level (UL) of intake has been established. Large doses may increase sun sensitivity (sun burns). Supplemental B2 is better absorbed when taken with food. Excessive doses cause yellow-green urine.

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. Foods that contain one B vitamin usually contain a good mix of B vitamins.

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-complex	Milligram = mg	
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 - See Quick Link to Dietary Supplements