



Center for Integrative Medicine

Dietary Supplements: Folate

Folate (folic acid, folacin) is a B vitamin. It is essential for the production of neurotransmitters such as serotonin and dopamine and for producing red blood cells. Deficiency can cause megaloblastic anemia and complications of pregnancy. Data are mixed on the effects of folate in treating or preventing Alzheimer's disease, cancer, chronic fatigue syndrome, depression, gingivitis during pregnancy, cardiovascular disease and stroke, and vitiligo.

Needs for folate may be increased in patients with pregnancy (to reduce the risk of neural tube defects, such as spina bifida, in babies). Chronic alcohol use and chronic smoking can deplete folate levels.

Certain medications can also increase the need for folate. Medications that may increase folate needs include: aminosalicylic acid; antacids; chronic use of oral antibiotics; aspirin in large, chronic doses; oral contraceptives; carbamazepine (Tegretol®); chloramphenicol, cholestyramine; colestipol; cycloserine; diuretics; estrogens (Premarin®); H2 blockers (e.g., cimetidine, randitidine, nizatidine and famotidine); methotrexate; non-steroidal anti-inflammtory medications; pentamidine; phenobarbital and primidone; proton pump inhibitors (e.g., esomeprazole, lansoprazole, pantoprazole); pyrimethamine; sulfasalazine; triamterene.

Dietary sources of folate include: whole grain cereals, Brewer's yeast, leafy green vegetables (spinach, broccoli, asparagus, lettuce), beets, avocado, citrus fruits, beans, peas, yeast, mushrooms, liver, orange juice, tomato juice, fortified flour. See the US National Library of Medicine site for more information: http://www.nlm.nih.gov/medlineplus/druginfo/natural/patient-folate.html

US Recommended Daily Allowance (RDA) or Adequate Intake (Al for infants) for folate for

Infants ages 0-6 months: 65 micrograms daily
Children 1-3 years: 150 micrograms

Infants 7-12 months: 80 micrograms daily
Children 4-8 years: 200 micrograms

Children ages 9-13 years; 300 micrograms

Adults and adolescents 14 years and older: 400 micrograms daily. Pregnant or breastfeeding women: 500 -600 micrograms daily.

The tolerable upper limit is 800 – 1000 micrograms daily for adults. (Note: a microgram is 1/1000 of a milligram) Patients may take higher doses with medical supervision. For example in patients with malabsorption, doses 1 -4 milligrams daily may be used; this is a much much higher dose than most people need.

Large doses of folate could mask a Vitamin B12 deficiency. Side effects of folate may include skin rashes, nausea, gas, cramps, diarrhea, irritability, excitability, fatigue, altered sleep, vivide dreams, seizures, and allergies. High doses may cause mouth sores, hair loss, bone marrow suppression, and zinc deficiency.

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
Folate		
Carlson® Folicacid	400 mcg	Carlson Division of JR Carlson Laboratories
Rite Aid Folic Acid 800 mcg	800 mcg	Rite Aid
B-complex		
GNC B- Complex 50		General Nutrition Corp.
Natrol™ B-100 Complex		Natrol, Inc
Now® B-50 Vitamin B-complex		Now Foods
Puritan's Pride B-50 and B-100 B-complex		Puritan's Pride