



Extension FactSheet

Human Nutrition, 1787 Neil Avenue, Columbus, OH 43210

Folate (Folacin, Folic Acid)

This fact sheet is one in a series containing information to help you select foods that provide adequate daily amounts of vitamins, minerals, and dietary fiber. Following these guidelines will put your diet in accordance with the Dietary Guidelines for Americans, which focus on nine general topics:

- Adequate nutrients within calorie needs
- Weight management
- Physical activity
- Food groups to encourage: fruits and vegetables, whole grains, and nonfat or low-fat milk and milk products
- Fats
- Carbohydrates
- Sodium and potassium
- Alcoholic beverages
- Food safety

What is “a good food source”?

A good food source of folate contains a substantial amount of folate in relation to its calorie content and contributes at least 10 percent of the U.S. Recommended Daily Allowance (RDA) for folate in a selected serving size. The U.S. RDA for folate is 400 micrograms per day. The U.S. RDA given is for adults (except pregnant or lactating women) and children over 4 years of age.

The U.S. RDA for folate is the amount of the vitamin used as a standard in nutrition labeling of foods. This allowance is based on the 1968 RDA for 24 sex and age categories set by the Food and Nutrition Board of the National Academy of Sciences. The 1989 RDA for folate has been set at 180 micrograms per day for women 19 to 50 years of age and 200 micrograms for men 19 to 50 years of age.

Where do we get folate?

More than one-third of the folate in the American diet is provided by fruits and vegetables. Grain products contribute a little more than one-fifth and legumes, nuts, and seeds contributed a little less than one-fifth. Foods that contain small amounts of folate but are not considered good sources can contribute significant amounts of folate to an individual's diet if these foods are eaten often or in large amounts.

Why do we need folate?

Folate, a water-soluble vitamin, helps the body form red blood cells and aids in the formation of genetic material within every body cell.

Functions of Folate

- Plays a role in reducing blood homocysteine levels
- Formation of red blood cells
- Protein metabolism
- Cell growth and division
- Prevention of neural tube defects and anencephaly
 - To prevent these defects adequate folate should be obtained in the first month of pregnancy
 - All neural tube defects occur between the 17th and 30th days following conception.

Do we get enough folate?

According to recent surveys of the U.S. Department of Agriculture (USDA), the average intake of folate by nonpregnant women and men 19 to 50 years of age met their RDA for folate.

Where can I find folate in the food guidance system?

Grains

Fortified breakfast cereal
Whole wheat products

Vegetables—*Excellent*

Source!
Asparagus
Leafy green vegetables

Meat and Beans

Liver
Eggs
Beans
Sunflower seeds

Fruits

Oranges
Strawberries
Cantaloupes and other melons

Milk, Yogurt, Cheese, Fats, Oils, and Sweets are poor sources of folate!

How can we get enough folate?

Eating a variety of foods that contain folate is the best way to get an adequate amount. Healthy individuals who eat a balanced diet rarely need supplements. The list of foods in the table of this fact sheet will help you select those foods that are good sources of folate as you follow the Dietary Guidelines. The list of good sources was derived from the same nutritive value of foods table used to analyze information for recent food consumption surveys of the USDA.

Some Good Sources of Folate

Food	Serving Size	Amount (Micrograms)	% Daily Value*
Chicken liver	3.5 oz	770	193
Breakfast cereals.....	1/2 to 1 1/2 cup	100 to 400.....	25 to 100
Braised beef liver	3.5 oz	217	54
Lentils, cooked	1/2 cup	180	45
Chickpeas	1/2 cup	141	35
Asparagus	1/2 cup	132	33
Spinach, cooked	1/2 cup	131	33
Black beans	1/2 cup	128	32
Burrito with beans	2	118	30
Kidney beans	1/2 cup	115	29
Baked beans with pork	1 cup.....	92	23
Lima beans	1/2 cup	78	20
Tomato juice	1 cup.....	48	12
Brussels sprouts.....	1/2 cup	47	12
Orange	1 medium.....	47	12
Broccoli, cooked.....	1/2 cup	39	10
Fast-food French fries	large order	38	10
Wheat germ	2 tbsp	38	10
Fortified white bread	1 slice.....	38	10

* based on Daily Value for folate of 400 micrograms
(Source: Food Values of Portions Commonly Used, 16th edition)

How to Prepare Foods to Retain Folate

Folate can be lost from foods during preparation, cooking, or storage. To retain folate:

- Serve fruits and vegetables raw whenever possible.
- Steam, boil, or simmer vegetables in a minimal amount of water.
- Store vegetables in the refrigerator.

What about fortified foods?

Most ready-to-eat cereals are fortified with folate. Fortified ready-to-eat cereals usually contain at least 25 percent of the U.S. RDA for folate. Because cereals vary, check the label on the package for the percentage of the U.S. RDA for a specific cereal. Since January 1, 1998, flour has also been fortified with folate.

What is a serving?

The serving sizes used on the list of good sources are only estimates of the amounts of food you might eat. The amount of a nutrient in a serving depends on the weight of the serving. For example, 1/2 cup of a cooked vegetable contains more folate than 1/2 cup of the same vegetable served raw, because a serving of the cooked vegetable weighs more. Therefore, the cooked vegetable may appear on the list, while the raw form does not. The raw vegetable provides the nutrient, just not enough in a 1/2-cup serving to be considered a good source.

References

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Updated and revised November 2004 by Marla Murphy, Dietetic Intern, Department of Human Nutrition, College of Human Ecology

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Keith L. Smith, Associate Vice President for Agricultural Administration and Director, OSU Extension

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