

Healthy Eating: Folate¹

Linda B. Bobroff²

What is folate?

Folate is one of the B vitamins. It is involved in the formation of DNA, the genetic material found in all cells of your body. Folate is an important nutrient for everyone. It is especially important for pregnant and nursing women, growing children, and older adults. Health problems may result if people do not get enough folate.

Folic acid is the form of folate found in fortified foods. Fortified foods are foods with added nutrients, usually vitamins and minerals. Folic acid also is the form of the vitamin found in dietary supplements. Check the Nutrition Facts panel on food labels to see which nutrients are listed.

What foods contain folate?

The word folate comes from the same Latin word as foliage or leaves. Some of the best food sources of folate are dark green leafy vegetables, like spinach, collards, and kale. Other foods high in folate are oranges and orange juice, legumes (dried beans and lentils), and peanuts. Fortified grain foods, like cereals and breads, contain the form of folate called folic acid.



Figure 1. Kidney beans are one of many legumes, all of which contain folate. Some other legumes include white kidney beans (cannellini beans), black beans, pinto beans, chickpeas, lima beans, and lentils. Credits: <http://www.thinkstock.com>

What happens if I do not get enough folate?

When you do not get enough folate, your body cannot make the DNA it needs. A lack of folate is especially a concern when the body is making new cells during pregnancy and early childhood. Everyone's body makes new cells every day, so we all need folate in our diets.

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2. Linda B. Bobroff, PhD, RD, LD/N, professor, Department of Family, Youth and Community Sciences, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL 32611.

Eating folate-rich foods may reduce your chances of developing:

- Anemia
- Heart disease
- Stroke
- Cancer
- Memory problems

How much folate do I need?

People 19 years old and older need 400 micrograms (mcg) of dietary folate equivalents (DFE) a day. Pregnant women need an extra 200 mcg, and nursing moms need an extra 100 mcg a day.

Eat foods naturally high in folate and foods fortified with folic acid to get 400 mcg of DFEs each day. You can take a multivitamin supplement that contains folic acid if you cannot get enough of this vitamin from the foods you eat. Check the Supplement Facts section of the label to see how much folic acid is in the supplement. One microgram of *folic acid* in a supplement provides 2 mcg of DFE (when you take it on an empty stomach). In contrast, 1 mcg of natural *folate* in foods provides 1 mcg of DFE.

How much is 400 micrograms?

Micro means small and 400 micrograms is a very small amount! One teaspoon of sugar weighs about 5 grams, or 5 **million** micrograms! So you would need about 12,500 portions of sugar, each weighing 400 micrograms to fill a teaspoon. No wonder folate is called a **micronutrient**!

Avoid getting too much folic acid, which can happen if you take supplements and eat a lot of fortified foods. Getting too much folic acid can hide the signs of a vitamin B₁₂ deficiency, and vitamin B₁₂ is also an important vitamin in our diet. People over 50 may be at risk for not getting enough B₁₂. For optimal absorption, it is best for people

over 50 to get vitamin B₁₂ from fortified foods or a vitamin supplement. Many breads and cereals are fortified with vitamins, including vitamin B₁₂. Check the ingredient list and Nutrition Facts panel and select some foods that have added vitamin B₁₂.

Here are some foods and the amount of folate they contain:

Table 1. Food sources of folate

Food	Folate (microgram/ serving)
Fortified ready-to-eat breakfast cereal, 1 serving	200–700
Spinach, ½ cup cooked	130
Romaine, 1 cup shredded	75
Kidney beans, ½ cup cooked	65
Orange juice, ¾ cup	45
Orange, 1 medium	40
Peanuts, dry roasted ½ cup	40

Where can I get more information?

A registered dietitian or your local county Extension office may have more written information or nutrition classes for you to attend. In Florida, find your local Extension office at <http://solutionsforyourlife.ufl.edu/map>.

Call your local Area Agency on Aging for information about meal programs and other services for older adults offered in your area. Reliable nutrition information may be found at the following websites:

<http://www.nutrition.gov/>

<http://folicacidinfo.org>

<http://www.usa.gov/Topics/Seniors.shtml>

<http://www.mayoclinic.com/>

<http://aoa.gov>