

Folic Acid: The vitamin that can prevent birth defects

November 2007

Folic acid is a B-vitamin found naturally in many foods and also in multivitamin supplements. It is especially important for women who could become pregnant because folic acid can help prevent birth defects. In addition, folic acid may also protect against heart disease, cancer and Alzheimer's disease.

Why do you need Folic Acid?

- It plays an essential role in making new body cells by helping to produce DNA and RNA, the cell's master plan for cell reproduction, which is especially important in the first month of a baby's development.
- Helps lower the risk of delivering a baby with neural tube defects such as spina bifida.
- Works with vitamin B12 to form hemoglobin in red blood cells therefore preventing anemia.
- May help protect against heart disease and cancer

Who Needs Folic Acid?

Whether you are a young women or a mature man, foods rich in folic acid are good for you. Folic acid is especially important for women of child-bearing age because folic acid can prevent birth defects. Even young girls should try to get enough folic acid every day. That way, when they are older and planning to become a mother, folic acid will already be part of their diet.

Recommended Daily Allowances for Folic Acid						
Children			Women			Men
1-3 yrs	4-8 yrs	9-13 yrs	19+ yrs	Pregnancy	Breast feeding	19+ yrs
150 mcg	200 mcg	300 mcg	400 mcg	600 mcg	500 mcg	400 mcg

(mcg = micrograms)

Folic Acid: The vitamin that can prevent birth defects

November 2007

Americans still are not getting enough folic acid in their diet according to a report published in the November 2006 issue of the American Journal of Public Health. Less than 50% of women of child-bearing age and less than 5% of all adults 65 and older consume the FDA-recommended 400 mcg per day. Men also need folic acid to help protect against the development of heart disease, cancer and anemia.

The FDA has set 1 mg (1000 mcg) as the maximum safe level of folic acid for adults. Consuming too much folic acid can mask a vitamin B12 deficiency and may interfere with certain medications. Recent research has also linked high intakes of folic acid with an increase in colon cancer.

Since enriched white rice provides a moderate amount of folic acid, about 11% of the recommended amount, you don't need to be concerned about going above the 400 mcg recommended.

Where is Folic Acid Found?

Enriched white rice is a good source of folic acid. A half-cup serving of cooked enriched white rice contains approximately 45 mcg, or 11% of the 400 mcg Recommended Daily Amount (RDA) for folic acid. In addition, enriched white rice goes well with other folic acid-rich foods like spinach, asparagus, and beans. The chart below shows some great food combinations that are rich sources of folic acid.

	Folic Acid (mcg)	% Daily Recommendation
½ cup rice + ½ cup spinach	175	44%
½ cup rice + ½ cup asparagus	175	44%
½ cup rice + ½ cup navy beans	170	42.5%
½ cup rice + ¼ cup wheat germ	125	31%
½ cup rice + ½ avocado	100	25%

Folic Acid: The vitamin that can prevent birth defects

November 2007

White rice has been enriched with folic acid since 1998 when the FDA required manufacturers to add folic acid to grain products such as white rice, bread, rolls, cornmeal, and noodles. A serving of each product will provide about 10% of the Recommended Daily Value for folic acid. Whole grain products, such as brown rice, do not have to be enriched because they contain natural folate although not as much as the enriched rice.

Why is White Rice Enriched?

“Enriched” means adding back nutrients that were lost during processing such as B vitamins including folic acid. The difference between white rice and brown rice is that the white rice is processed, which removes the bran, germ, and endosperm of the rice grain where many vitamins and minerals reside. Brown rice has not been processed therefore retains the nutrients.

Don't be confused by labels.

Read food and vitamin labels carefully to be sure you are getting enough folic acid. On the labels, folic acid is also called “folate.” These terms are used interchangeably. Folate is found naturally in foods. The form of folate that is found in enriched and fortified foods and in vitamin supplements is folic acid.

The amount of folic acid in a food may be given as either 400 micrograms (mcg or μg) or 0.4 milligrams (mg). They are the same amount. Unfortunately, folic acid is not a required nutrient on food labels; therefore it is only listed when a product is fortified with folic acid or makes a folic acid claim. If a food claims that it is a “good source of folate or folic acid,” it means that the food provides 10% to 19% of the 400 mcg Recommended Daily Value (DV). If the food claims “excellent or high source,” it contains at least 20% DV for folic acid or folate.

Folic Acid: The vitamin that can prevent birth defects

November 2007

Some food and dietary supplement labels may carry a longer claim that says *"Healthful diets with adequate folic acid intake may reduce the risk of having a child with a brain or spinal cord defect."* Products carrying this claim must:

- Provide 10% DV or more of folic acid per serving—at least 40 mcg.
- Not contain more than 100% DV for vitamins A and D per serving because high intakes of these vitamins are associated with other birth defects.
- Carry a caution on the label about excess folic acid intake.
- List on the label's Nutrition or Supplements Facts panel the amount of weight in micrograms and the %DV of folic acid per serving.

Folic Acid Tips:

- Choose folic acid enriched white rice.
- Combine enriched white rice with dark-green leafy vegetables, dried beans, peas and other folic acid-rich foods.
- Include folic acid-fortified enriched grain products in your meals.
- Increase your intake of folic acid to 600 mcg if you are pregnant or thinking of getting pregnant.
- If you are breast feeding, make sure you are getting 500 mcg of folic acid a day.
- Use the listing for folic acid given in the Nutrition and Supplement Facts panels to compare folic acid levels in various foods and supplements.
- Balance the amount of folic acid you are getting in vitamin pills with food sources.
- FDA has set 1 mg (1000 mcg) as the maximum safe level of folic acid for adults. Consuming too much folic acid can mask a vitamin B12 deficiency, may interfere with certain medications, and has been linked to increased colon cancer.