

Folic Acid for the Prevention of Infant Neural Tube Defects: U.S. Preventive Services Task Force Recommendation

Summaries for Patients are a service provided by *Annals* to help patients better understand the complicated and often mystifying language of modern medicine.

The full reports are titled “Folic Acid for the Prevention of Neural Tube Defects: U.S. Preventive Services Task Force Recommendation Statement” and “Folic Acid Supplementation for the Prevention of Neural Tube Defects: An Update of the Evidence for the U.S. Preventive Services Task Force.” They are in the 5 May 2009 issue of *Annals of Internal Medicine* (volume 150, pages 626-631 and pages 632-639). The first report was written by the U.S. Preventive Services Task Force; the second report was written by T. Wolff, C. Takacs Witkop, T. Miller, and S.B. Syed.

Who developed these recommendations?

The U.S. Preventive Services Task Force (USPSTF) is a group of health experts that reviews published research and makes recommendations about preventive health care.

What is the problem and what is known about it so far?

The neural tube lies along the back of a developing embryo and becomes the brain and spinal cord. Neural tube defects are abnormalities of the embryo’s brain and spinal cord. The most common neural tube defect is a condition known as *spina bifida*. Spina bifida can be mild or severe. In mild forms, babies are born with a dimple or tuft of hair at the base of the spine. In more serious forms, the spinal bones (vertebrae) are abnormal or part of the spinal cord is open to the skin. Severe forms can cause weakness or numbness in the legs and lack of bladder or bowel control. Women who take folic acid vitamin supplements before and during early pregnancy are less likely to have babies with neural tube defects than women who do not take folic acid. In 1996, the USPSTF recommended that all women who could become pregnant take a multivitamin supplement containing folic acid. The USPSTF wanted to see whether new studies supported a change in the 1996 recommendation.

How did the USPSTF develop these recommendations?

The authors reviewed published studies to identify the benefits and harms of folic acid supplements for women who could become pregnant.

What did the authors find?

No studies have been published since 1996 that would support a change in the previous recommendation. Folic acid supplementation clearly reduces neural tube defects. No studies showed harm associated with taking folic acid. Although some studies reported increased twin pregnancies in women who take folic acid, careful analysis suggests that it was fertility treatments and not folic acid that led to the twin pregnancies.

What does the USPSTF suggest that doctors and patients do?

All women capable of pregnancy should take a daily vitamin supplement that contains 0.4 to 0.8 mg (400 to 800 μ g) of folic acid.

What are the cautions related to these recommendations?

Many foods are now fortified with folic acid. It is not known whether women can get enough folic acid to prevent neural tube defects simply by eating folic acid–fortified food.

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