

Folic Acid Supplementation for Prevention of Neural Tube Defects

The US Preventive Services Task Force (USPSTF) has published an updated recommendation on taking folic acid before and during pregnancy to prevent neural tube defects.

What Are Neural Tube Defects?

Neural tube defects are problems with the **cranium** (brain and skull) or **spine** (spinal cord and backbone) that can occur in fetuses during early pregnancy. These problems occur when the neural tube, an important embryonic structure, does not close properly. The 2 major types of neural tube defects are **anencephaly** (in which parts of the brain are not formed properly) and **spina bifida** (in which parts of the spinal cord and backbone are not formed properly).

Because neural tube defects are often severe, treatments are limited. Babies born with anencephaly cannot survive past a few weeks, and babies born with spina bifida have varying levels of disability. Therefore, prevention is very important. Folate deficiency is one of the major preventable causes of neural tube defects.

What Is the Patient Population Under Consideration for Taking Folic Acid to Prevent Neural Tube Defects?

This USPSTF recommendation applies to all women planning for pregnancy as well as those who are able to have children who do not have specific plans for pregnancy. Many pregnancies are unplanned and may be unrecognized in the early weeks, which is the most critical period for taking folic acid.

What Are the Potential Benefits and Harms of Taking Folic Acid to Prevent Neural Tube Defects?

Randomized and observational studies suggest that taking folic acid significantly decreases the risk of fetal neural tube defects, particularly in women whose diets are not high in folic acid. Potential harms of taking folic acid are small because there are no major negative side effects to taking the supplement.

How Strong Is the Recommendation to Take Folic Acid to Prevent Neural Tube Defects?

Based on the current evidence, the USPSTF concludes with high certainty that the potential benefits of taking folic acid before and during early pregnancy substantially outweigh the potential harms.

Bottom Line: Current Recommendation for Taking Folic Acid to Prevent Neural Tube Defects

The USPSTF recommends that all women planning for or capable of pregnancy take folic acid at a dosage of 400 to 800 µg daily (an "A" recommendation).

Folic Acid for the Prevention of Neural Tube Defects

Population



WOMEN WHO ARE PLANNING OR CAPABLE OF PREGNANCY

USPSTF recommendation grade



Recommended

FOR MORE INFORMATION

US Preventive Services Task Force

www.uspreventiveservicestaskforce.org/Page/Document/draft-recommendation-statement160/folic-acid-for-the-prevention-of-neural-tube-defects-preventive-medications

 To find this and other JAMA Patient Pages, go to the For Patients collection at jamanetworkpatientpages.com.

Author: Jill Jin, MD, MPH

Source: US Preventive Services Task Force. Folic acid supplementation for the prevention of neural tube defects: US Preventive Services Task Force recommendation statement. *JAMA*. doi:10.1001/jama.2016.19438

The JAMA Patient Page is a public service of *JAMA*. The information and recommendations appearing on this page are appropriate in most instances, but they are not a substitute for medical diagnosis. For specific information concerning your personal medical condition, *JAMA* suggests that you consult your physician. This page may be photocopied noncommercially by physicians and other health care professionals to share with patients. To purchase bulk reprints, call 312/464-0776.