

A folate a day to keep the doctor away

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Each year in the United States, approximately 4,627 babies are born — 385 per month, 88 per week and 12 per day — with neural tube defects. Neural tube defects is a disorder involving incomplete development of the brain, spinal cord or their protective coverings caused by the failure of the fetus' spine to close properly during the first month of pregnancy.

NEURAL TUBE DEFECTS

Spina bifida (SB) is a condition in which the spinal cord is exposed. If the vertebrae surrounding the spinal cord do not close properly during the first 28 days after fertilization, the cord or spinal fluid bulge through, usually in the lower back. The National Institute of Neurological Disorders and Stroke stated that infants born with SB sometimes have an open lesion on their spine where significant damage to the nerves and spinal cord has occurred. Although the spinal opening can be surgically repaired shortly after birth, the nerve damage is permanent, resulting in varying degrees of paralysis of the lower limbs. Even when there is no lesion present, there may be

improperly formed or missing vertebrae and accompanying nerve damage. In addition to physical and mobility difficulties, most individuals have some form of learning disability.

Anencephaly: The National Institute of Neurological Disorders and Stroke report that infants with this disorder are born without the front part of the brain and a cerebrum — the thinking and coordinating part of the brain. The remaining brain tissue is often not covered by bone or skin. A

baby born with anencephaly is usually blind, deaf, unconscious and unable to feel pain. Although some individuals with anencephaly may be born with a rudimentary brain stem, the lack of a functioning cerebrum permanently rules out the possibility of ever gaining consciousness. Reflex actions such as breathing and responses to sound or touch may occur. If the infant is not stillborn, then he or she will usually die within a few hours or days after birth.

Greene said women should start taking folic acid prior to getting pregnant, even if they are not trying to conceive. The American Pregnancy Association said there are a number of places to get folic acid: leafy green vegetables such as spinach, broccoli, romaine lettuce and asparagus; beans such as lentil and black beans; citrus fruits; breads; cereals; rice; and pastas.

Greene suggested women who could possibly get pregnant should be consuming 400 micrograms of folic acid a day from food or supplements. A cup of spinach or asparagus contain 260 micrograms of folic acid. Lentils have about 360 micrograms per cup and black beans have about 300 micrograms per cup.

Women who are pregnant should consume about 600 micrograms a day. "In the 1990s, the average American woman got about 250 micrograms a day, and that amount can lead to birth defects. In 1998, a law came into effect that required white flour to be enriched with folate. Since that law has been in place, the average American gets about 340 micrograms a day, closer to the normal amount," said Greene. ♦

FOLATE AND FOLIC ACID are forms of a water-soluble B vitamin. Folate occurs naturally in food and folic acid is the synthetic form of this vitamin found in supplements and fortified foods. Having the proper amounts of this B vitamin is especially important during periods of rapid cell division and growth that happen during infancy and pregnancy. Folate is needed to make DNA and RNA, and also helps prevent changes to DNA that may lead to cancer.

Everyone needs folic acid to survive; it aids healthy cell growth and repair, and is very important for a number of processes in developing babies. Folate helps with the development of the neural tube, and without the proper amount, cell production does not occur properly.

Neural tube defects occur very early in the pregnancy, 20 to 28 days after conception, said Dr. Alan Greene, author of "From First Kicks to First Steps." "At one point, the baby is growing so quickly that the nervous system alone is adding 100,000 new nerve cells an hour."



For more information, visit
www.americanpregnancy.org.