

# Why We Should Know All About Folic Acid

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Your patient maybe a healthy women who does not smoke, drink or take any medications during pregnancy. And yet she may deliver a baby who has a heart or brain defect. She is heartbroken and wonders if anything could have been done to prevent it. In most situations the answer is no—it is just one of those things that can happen in families.

However for the next pregnancy if she has never been pregnant, before getting pregnant, advise her to take one tablet of Folvite per day three months before she actually becomes pregnant.

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Folic acid is a naturally occurring Vitamin B that helps a baby's neural tube—the part of a fetus that later develops into the brain and spinal cord. If normal development does not occur, spina bifida and other anomalies can result.

Several studies suggest that women who do not consume enough of Vitamin B folic acid before and during the early weeks of pregnancy are at an increased risk of having a baby with a heart defect. A recent study in Canada demonstrated that the increase in folic acid intake nationwide has resulted in a decrease in the prevalence of infants born with severe congenital heart disease (CHD), supporting the idea that folic acid taken preconceptually may prevent CHD. Lead author Raluca Ionescu-Iltu from McGill University, Montreal, Quebec, Canada, presented the findings at the American Heart Association (AHA) 2007 Scientific Sessions. According to the researchers, who conducted the study in the Quebec population, guidelines to recommend folic acid supplements were released in Canada in 1993, and fortification of flour was recommended in 1996 and became mandatory in 1998. The study represents the first population-based effort to assess this issue. The researchers evaluated changes in the birth prevalence of severe CHD over time during the four periods defined by the initiation of pre-supplementation, pre-fortification, transition to fortification, and post-fortification of folic acid. The study population consisted of live births from 1990 to 2001 diagnosed with severe CHD, including Tetralogy of Fallot, endocardial cushion defect, univentricular hearts, truncus arteriosus, or transposition complexes coded by a cardiovascular specialist. Compared with the pre-supplementation period, the average birth prevalence did not decrease significantly until the postfortification period (1.94 vs 1.72 /1,000 live births [P =.04]), representing a seven percent reduction in severe CHD.

Thus, it has been proven that Folic acid, a Vitamin B, helps prevent birth defects of the heart, brain and spinal cord, when taken before and very early in pregnancy. It is available in most multivitamins, as a folic acid-only supplement and in some foods. All women are prescribed folic acid once they become pregnant. But, how many actually take it before missing a cycle? Although, most obstetricians and pediatricians are aware of the fact that pre-conceptual folic acid has been shown to reduce neural tube defects and congenital heart defects in the fetus, our survey revealed that less than one percent of pregnant women have actually been counselled regarding its benefit.

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All doctors dealing with women of child bearing age should advise them to take 400 micrograms of folic acid every day before pregnancy and during early pregnancy, as part of a healthy diet. Additionally, they need to be advised to eat a healthy diet that includes foods that contain folate, the natural form of the vitamin.

Folic acid is found in the following foods:

- Fortified breakfast cereals
- Lentils i.e. dals
- Asparagus
- Spinach i.e. palak
- Peanuts
- Orange juice
- Enriched breads and pasta
- Romaine lettuce
- Broccoli

In recent years, studies have shown that folic acid is very important for everyone later in life to maintain good health. It has long been known that folic acid plays an important role in the production of normal red blood cells. More recent studies suggest that folic acid may help prevent heart disease, stroke and certain cancers, especially colon cancer. This suggests that everybody including you and me will benefit from taking folic acid! ■