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# ***Folic Acid***

## *What You Can Do for a Healthier Baby*

### ***Why is Folic Acid Important?***

- ! Increasing the daily intake of this vitamin can reduce, by up to one-half, the risk of one serious type of birth defect -- Neural Tube Defect (NTD).<sup>1,2</sup>

### ***What are Neural Tube Defects(NTD)?***

- ! NTD's are severe birth defects that occur when the upper or lower end of the neural tube (forms the brain and spinal cord) does not close.<sup>3</sup>
- ! Most NTD's result in two common disorders: spina bifida (the spine does not form normally) and anencephaly (the skull and brain do not develop normally).<sup>3</sup>
- ! These disorders can result in serious disability, including paralysis or even death.<sup>5</sup>

## ***How does Folic Acid Work in Reducing NTD's?***

- ! Folic acid controls how the embryo (developing baby) and its nerve cells form and develop and this helps prevent NTD.<sup>1</sup>

### ***Timing is Everything***

- ! Your baby's brain and spinal cord form very early. The neural tube closes in the third or fourth week after the baby is conceived<sup>7</sup>, and the growth of the spine and brain is completed 5 weeks after conception.<sup>3</sup> As a result, the time of starting folic acid is crucial to get the best prevention of NTDs.
- ! One problem is that most women are not aware that they are pregnant until after much of the neural tube has formed.
- ! Another problem is that the amount of folate in your body depends on your intake during the three or four months *before* you get pregnant.<sup>4</sup>
- ! The critical time to make sure that you are getting enough folic acid is **before** you get pregnant **and** during the first two months of pregnancy. This will provide the best prevention for your baby.<sup>4</sup>

### ***What is Folic Acid?***

- ! Folic acid is a water soluble B-group vitamin that is also known as folate or folacin.<sup>3,5</sup>
- ! Usual sources in the diet are grains, green leafy vegetables (spinach, broccoli), fruits (bananas), meats (liver) and legumes (lentils and kidney beans).<sup>6</sup> The good sources of folic acid can be destroyed by overcooking, processing and preserving.<sup>5</sup>
- ! It is easy to get over half of the folic acid needed by following Canada's Food Guide.<sup>5</sup>
- ! It can be hard to get the full daily amount of folic acid (0.4 mg) needed in pregnancy from food. It would take 8 glasses of orange juice, 10 servings of broccoli or spinach and 3 bananas.<sup>6</sup> Cereals enriched with folate can help.
- ! Another way to get enough every day is to take folic acid supplements or multivitamins.<sup>4</sup> Folic acid supplements are very safe.

## ***How Much Folic Acid Should I be Taking?***

- ! How much depends on what risk group you belong to.<sup>3</sup>
- ! Those women who are "low risk" should be taking 0.4 mg of folic acid -- from 1 month before conception until 10-12 weeks after the last menstrual period.<sup>1</sup>
- ! Women are considered "high risk" if they have had a previous pregnancy affected with NTD, a family history of NTDs (eg. siblings, parent, cousin), insulin dependent diabetes (type 1 diabetes) or epilepsy. They need to take more folic acid. They should take 4-5 mg of folic acid each day from 1 month before conception until 10-12 weeks after the last menstrual period.<sup>1</sup>

### ***What Tests can Detect NTD's?***

- ! At 15-20 weeks of a pregnancy, a special ultrasound and blood test (maternal serum alpha fetoprotein) will find 85-90% of NTD's.<sup>1</sup>

### ***Side Effects of Folic Acid***

- ! Avoid taking more than 1 mg of folic acid supplements per day unless you are at high risk. Higher doses of folic acid can cause complications if your body is also lacking enough vitamin B<sub>12</sub>.<sup>1</sup>
- ! People with seizure disorders should be careful when taking folic acid.<sup>1</sup> Discuss this with your doctor.
- ! Prenatal or other multivitamin preparations should be carefully dosed to avoid problems from taking too much vitamin A.<sup>1</sup>

### ***Birth Control Pills & Folic Acid***

- ! Birth control pills can lower the body's stores of folic acid, and levels do not return to normal until 3 months after you stop using them.<sup>5</sup>
- ! It may be safest to try extra folic acid right along with your birth control pill.