



## A CUP OF HEALTH WITH CDC

### *You CAN Help Prevent Birth Defects*

*Trends in Folic Acid Supplement Intake Among Women of Reproductive Age – California 2002–2006*

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*[Announcer] This podcast is presented by the Centers for Disease Control and Prevention. CDC – safer, healthier people.*

**[Matthew Reynolds]** Welcome to *A Cup of Health with CDC*, a weekly broadcast of the MMWR, the Morbidity and Mortality Weekly Report. I'm your host, Matthew Reynolds.

It's important for all women of child bearing age to get enough folic acid. Scientific studies have show that a daily dose of 400 micrograms of folic acid can prevent more than half of neural tube defects that might otherwise occur. The neural tube, which becomes the brain and spinal cord, is one of the earliest structures to develop during pregnancy. Since about half of all pregnancies aren't planned, a woman may not know for a month or two that she's pregnant, which is why it's so important for all women of child bearing age to take folic acid everyday.

Dr. Christine Prue, with CDC's National Center on Birth Defects and Developmental Disabilities, is here to discuss the importance of folic acid in preventing some serious birth defects. Welcome to the show, Dr. Prue.

**[Dr. Prue]** I'm glad to be here. Thank you for having me.

**[Matthew Reynolds]** Dr. Prue, what is folic acid and why is it important?

**[Dr. Prue]** Folic acid is a B vitamin that prevents serious birth defects – specifically, spina bifida and anencephaly. You might call it the wonder drug, but it really is an important vitamin that helps cells grow. And when you think about what happens after conception in women, that's when cells are growing fastest. And if that's not there, cells don't grow the way they are supposed to. So it's a vitamin that women need for their own bodies, but especially for new babies.

**[Matthew Reynolds]** I've heard about folic acid, but I've also heard about folate. Is there a difference? Are both folic acid and folate equally important to a women, as well as her developing baby?

**[Dr. Prue]** Great question. They're used interchangeably in some communities, like the nutrition community, but they really are quite different. Folic acid is the synthetic form of the vitamin B-9. It's manmade, it's a less complex B vitamin. Folate is the natural form found in fruits and some vegetables and some nuts. It's a very complex B-9. It's natural and it's found in foods that are good for you to eat. It's much more complex in its structure, so your body doesn't break it down as quickly as the synthetic form, which

makes a difference in terms of how available this important vitamin is to a women's body, but especially available for a growing baby's body.

**[Matthew Reynolds]** If a woman is not trying to get pregnant and doesn't plan to get pregnant, should she be concerned about getting enough folic acid?

**[Dr. Prue]** Yes, she should. Folic acid is good for your body, in general, because it is an important essential vitamin for turning RNA into DNA which is cell growth, and our bodies always are reproducing cells, so that's a good thing. Even if she's not planning a pregnancy, half of pregnancies in this country are unplanned, so the "oops" factor makes it important for women to have her body fortified, just in case she does get pregnant.

**[Matthew Reynolds]** And so if she does get pregnant and is not aware of it and is not taking folic acid that could be a danger to the developing baby because it won't have as much folic acid as it needs to develop properly.

**[Dr. Prue]** Correct. Most women don't know their pregnant at conception. They find out a month or two afterwards. Usually women are great about starting folic acid or prenatal vitamins at pregnancy recognition. By then, these birth defects have occurred. They occur between 14 and 21 days of conception, so if a women finds out she's pregnant and starts taking folic acid, it's too late.

**[Matthew Reynolds]** Can you tell me more about what happens when a baby has the type of birth defects that you were mentioning?

**[Dr. Prue]** Neural tube defects is the category of birth defects we're talking about. And there are two major types; there are a number of types, but two major types. Think about a two-ended zipper. For spina bifida, the zipper going down doesn't close. That is, the bones of the spinal cord don't form so that your spinal cord is exposed and it actually can cause a lot of damage so that kids are paralyzed to differing degrees throughout their life. If the zipper going up the neural tube doesn't close, their brain doesn't develop and that becomes anencephaly which is a very serious birth defect where most kids do not survive either in the womb or a few days after birth.

**[Matthew Reynolds]** So the message then is that for women who either plan to get pregnant or don't, they still need to be getting folic acid.

**[Dr. Prue]** Correct.

**[Matthew Reynolds]** I've heard and I've read that in some cases you can get too much of a good thing, too much of a vitamin or mineral. What happens if a person gets too much folic acid?

**[Dr. Prue]** Fortunately, folic acid is a water soluble vitamin so, if you take in too much, your body self regulates and flushes out any excess. So getting too much folic acid is not a huge concern for the population.

**[Matthew Reynolds]** What is the recommended intake of folic acid?

**[Dr. Prue]** Well, right now, the recommendation is for all women of child bearing age to consume 400 micrograms of synthetic folic acid every day. They can do that by taking a supplement, which most in this country have 400 micrograms, or they can take it through breakfast cereal – a nice good bowl of breakfast cereal that has 100% of the daily value of folic acid. Not all breakfast cereals have that so you have to read the label and find the one that you like and that you'll want to eat on a daily basis that has 400 micrograms.

**[Matthew Reynolds]** Where can people go for more information about folic acid?

**[Dr. Prue]** They can go to CDC's website and go to [www.cdc.gov/folicacid](http://www.cdc.gov/folicacid).

**[Matthew Reynolds]** Dr. Prue, thanks for sharing this information with our listeners today.

**[Dr. Prue]** Thank you. The pleasure was mine.

**[Matthew Reynolds]** That's it for this week's show. Don't forget to join us next week. Until then, be well. This is Matthew Reynolds for *A Cup of Health with CDC*.

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