



# Neural Tube Defects and Folic Acid Consumption

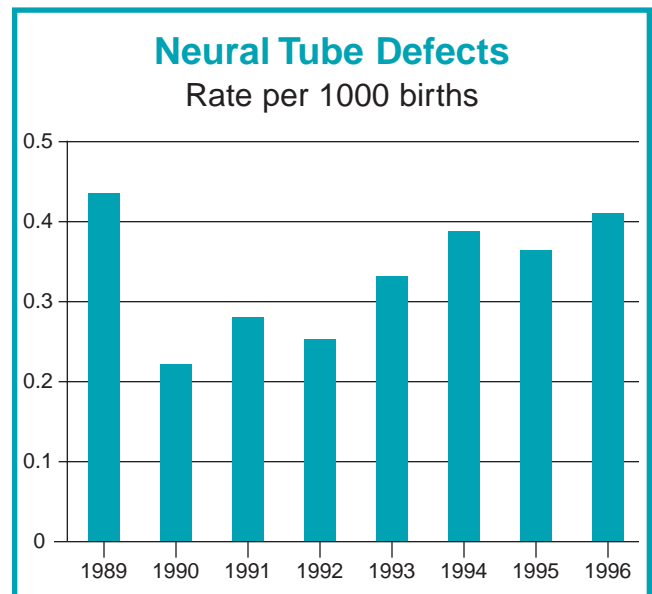
## WHAT ARE NEURAL TUBE DEFECTS?

Neural tube defects are birth defects caused by incomplete closure of the spine (spina bifida) or skull (anencephaly). Babies with anencephaly die before birth or survive for only a short time after birth. Babies with spina bifida usually survive but many have significant life-long disabilities. About 2,500-3,000 children are born each year in the United States with these problems. **At least half of all neural tube defects could be prevented if all women who could become pregnant consumed an adequate amount of folic acid, a vitamin found in most multi-vitamin supplements.**

## NEURAL TUBE DEFECTS IN COLORADO

Colorado Responds to Children with Special Needs (CRCSN), the public health program for monitoring and preventing birth defects, monitors the number of new cases of neural tube defects that occur in the state each year. Since there are relatively few cases in any one year (12-23 cases of neural tube defects in live born infants), the rate can fluctuate significantly from year to year. Still the graph below

shows that the rate does not appear to be decreasing, as it should if all women who could become pregnant consumed the recommended amount of folic acid.



## PRENATAL DIAGNOSIS

Health care providers are now able to diagnose neural tube defects before the baby is born (prenatal diagnosis). Some of these prenatally diagnosed pregnancies do not result in a live birth, so the neural tube defect is not counted in a system that only monitors live births. One study showed that when all

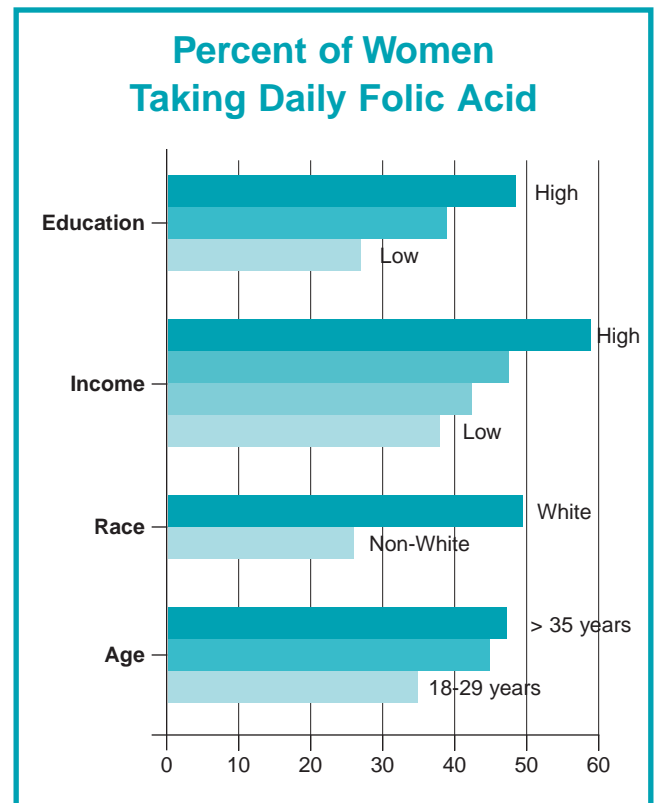
cases were counted, instead of just live births, the rates of anencephaly increased by about 60-70% and the rates of spina bifida increased by about 20-30%. In Colorado, we are in the process of adding prenatally diagnosed cases of birth defects to our monitoring program so that we can track this condition, and others, more accurately. It is especially important to have accurate information about the rate of these neural tube defects in order to measure the impact of folic acid use.

## FOLIC ACID

All women who could become pregnant, even those not planning a pregnancy, should get 0.4 mg. of folic acid a day. Half of all pregnancies are unplanned, and birth defects often develop before a woman knows she is pregnant. That means that *all women who might become pregnant* need to hear the message about folic acid. The easiest way to get the right amount of folic acid is to take a multivitamin every day (most contain the right amount of folic acid). Some foods, like orange juice, breakfast cereals, bread, rice, pasta, beans, peas and green leafy vegetables, are also good sources of folic acid. Women who have had a baby with a neural tube

defect should take a higher dose of folic acid and should see their physician to talk about folic acid and future pregnancies.

A 1996 survey of Colorado women between the ages of 18 and 44 years showed that **only 44% were taking folic acid daily**. Younger, non-white, lower income and less educated women were even less likely to take folic acid. Most (58%) women in Colorado had not heard about the recommendations for taking folic acid. *Spread the word about folic acid!*



For more information contact:  
**Colorado Responds to Children with Special Needs**  
 Colorado Department of Public Health and Environment  
 4300 Cherry Creek Drive South  
 Denver, CO 80246-1530  
 (303) 692-2700  
 e-mail: [crcsn@state.co.us](mailto:crcsn@state.co.us)  
 website: [www.cdph.state.co.us/dc/dccrcsn.html](http://www.cdph.state.co.us/dc/dccrcsn.html)



For more information on healthy pregnancies or birth defects contact the  
**March of Dimes**  
 888-663-4637  
 e-mail: [resourcecenter@modimes.org](mailto:resourcecenter@modimes.org)  
 website: [www.modimes.org](http://www.modimes.org)