

Low Choline Level in Pregnancy Tied to Birth Defects

Anencephaly, spina bifida linked to nutrient found in foods, study shows



(HealthDay News) -- Low blood levels of the nutrient choline during pregnancy increases the risk of brain and spinal-cord defects in newborns, U.S. researchers report.

They focused on two types of neural tube birth defects -- anencephaly and spina bifida. Anencephaly is a lethal condition in which the brain and skull don't develop, and spina bifida is a spinal-cord malformation that causes paralysis and lifelong disability.

The Stanford University School of Medicine team compared pregnancy blood samples from 80 women who gave birth to children with anencephaly and spina bifida to pregnancy blood samples from 409 women whose infants had no birth defects.

The results showed that choline levels were linked to risk of neural tube defects. Choline is found in egg yolks, soy, wheat germ and meats.

Women with the lowest blood choline levels during pregnancy were 2.4 times more likely to have infants with neural tube defects than women with average blood choline levels. Women with the highest choline levels had the lowest risk.

The study appears in the Aug. 14 issue of *Epidemiology*.

Primary author Gary Shaw, a professor of neonatology, noted that prenatal vitamins contain little or no choline. For women planning to get pregnant, "the best source for choline is still eating a variety of foods," he said in a university news release.

More information

The U.S. National Institute of Child Health and Human Development has more about [neural tube defects](#).
-- Robert Preidt

SOURCE: Stanford University, news release, Aug. 12, 2009 **Low Choline Level in Pregnancy Tied to Birth Defects**

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