
Zinc in pregnancy combats children's diarrhea

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NEW YORK (Reuters Health) - In developing countries such as Peru, where zinc deficiency is common, giving pregnant women zinc supplements may help curb diarrhea-related illness in their babies, research hints.

In a study, Peruvian infants of women who took zinc while pregnant had fewer days with diarrhea, relative to infants of women who took a placebo. They were also less apt to have a bout of diarrhea lasting for more than a week.

Millions of youngsters in the developing world suffer diarrhea, which can be life-threatening. Zinc deficiency increases the risk of death due to diarrhea, as well as pneumonia, malaria and infectious disease.

Past studies have shown that giving zinc supplements to young children with diarrhea helps clear up the problem faster, researchers note in *The Journal of Pediatrics*. The World Health Organization now recommends zinc supplementation in combination with rehydration therapy in the treatment of acute diarrhea.

However, less is known about the period before birth "when zinc could potentially be most influential in later immune functioning," Dr. Laura E. Caulfield, of the Center for Human Nutrition, Department of International Health, Johns Hopkins Bloomberg School of Public Health in Baltimore and colleagues point out.

In a prior study conducted in Bangladesh, zinc supplements given to pregnant women cut the risk of diarrhea in their infants by 26 percent and severe diarrhea by 64 percent.

In the current study, Caulfield's team tested whether zinc supplements taken by pregnant women living in a slum of Lima, Peru, would curb diarrhea-related illness in infants up to 12 months after birth. A total of 214 women took a daily supplement containing 15 milligrams zinc, 60 milligrams iron and 250 micrograms folic acid, while 207 matched "control" women took a similar-looking placebo supplement containing only iron and folic acid. About 420 infants were followed up for illness.

From the ages of 6 months to 1 year, 80 percent of the infants had at least one bout of diarrhea. The range was 0 to 11 episodes.

According to the researchers, infants whose mothers took zinc while pregnant were sick about 6 percent of the days they were observed, whereas infants whose mothers took placebo were sick for around 8 percent of observation days.

In addition, infants of zinc supplemented moms were about 34 percent less likely to have an episode of diarrhea lasting more than a week or to have mucus in the stool -- a sign of more severe diarrhea. There was also some evidence of a reduction in cases of the skin disease scabies in infants whose mothers took zinc.

Diarrhea-related illness is "a leading cause of death globally," Caulfield and colleagues note in their report. Their study, they say, supports improving prenatal zinc nutrition, especially in resource-poor, under-nourished populations, as a means of protecting infants against diarrhea-related illness.

Still, they say, "many questions related to the benefits of supplementing pregnant women with zinc remain to be answered." Among them: Just how prenatal zinc exposure protects against diarrhea.

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