Antioxidant Intake During Pregnancy Helps Lung and Skin Health in Infants

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The importance of the mother’s diet in the health of her newborn is well known. Important nutrients in newborn health include vitamin C, vitamin E, vitamin B-3, calcium, and probiotics. Omega-3 fatty acids, perhaps the most important nutrient for newborns’ brain health, has been found to help improve eye and brain health, help maintain a healthy blood pressure, improve eye-hand coordination and help with long-term lung health and overall development.

Now a new study has found that intake of antioxidants may help lung and skin health in newborns. In the study, 763 mothers participating in the Osaka Maternal and Child Health Study provided data on their intake during pregnancy via a diet history questionnaire of 150 foods. Data on symptoms of wheeze and eczema in their children were based on criteria of the International Study of Asthma and Allergies in Childhood.

The researchers found that intake of several foods and beta-carotene during pregnancy was “significantly associated” with a reduced risk of eczema, but not wheeze, in their children. Specifically, those in the highest 25% of green and yellow vegetables had a 59% reduced risk of eczema in their children compared to those in the lowest 25% of intake (125.8 vs. 27.6 servings during pregnancy). For citrus fruit, there was a 47% reduced risk (87.1 vs. 0.5 serving during pregnancy) and for beta carotene there was a 48% reduced risk (4218 vs. 1180.9 mg/day during pregnancy).

Maternal vitamin E consumption during pregnancy was “significantly inversely related” to the risk of wheeze, but not eczema, in their children. Specifically, those in the highest 25% of vitamin E intake had a 46% reduced risk of wheeze compared to those with the lowest 25% intake (9.7 vs. 6.1 mg/day during pregnancy).

Although those results were very promising for nutrition and supplementation for skin and lung health, no statistically significant associations were observed between maternal intake of total vegetables, vegetables other than green and yellow vegetables, total fruit, apples, alpha-carotene, vitamin C, or zinc and the risk of wheeze or eczema in the children.

For the researchers, “Higher maternal consumption of green and yellow vegetables, citrus fruit, and beta-carotene during pregnancy may be protective against the development of eczema in the offspring” and that “higher maternal vitamin E intake during pregnancy may reduce the risk of infantile wheeze.”

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