Maternal diet high in trans fats doubles risk of excess body fat in breastfed babies, study finds

EurekAlert

Athens, Ga. A new University of Georgia study suggests that mothers who consume a diet high in trans fats double the likelihood that their infants will have high levels of body fat.

Researchers, whose results appear in the early online edition of the *European Journal of Clinical Nutrition*, found that infants whose mothers consumed more than 4.5 grams of trans fats per day while breastfeeding were twice as likely to have high percentages of body fat, or adiposity, than infants whose mothers consumed less than 4.5 grams per day of trans fats.

The researchers investigated different fatty acids, but determined trans fats to be the most important contributor to excess body fat. "Trans fats stuck out as a predictor to increased adiposity in both mothers and their babies," said study co-author Alex Anderson, assistant professor in the UGA College of Family and Consumer Sciences.

Anderson explained that although breast milk is optimal for the health of infants, it could also contain high levels of trans fats, depending on the mother's diet. A better understanding of how a mother's consumption of trans fats may impact the health of her baby would aid nutritionists in making more accurate dietary recommendations to prevent chronic disease later in life by encouraging mothers to select a diet low in trans fats, he said.

To determine the effect of the intake of trans fats by the child through breast milk, the researchers studied three different groups; mothers who only breast fed their infants, those that only used formula and those that used a combination of breast milk and formula.

It is important to measure body fat in addition to weight, said Anderson, since being overweight does not always mean having a high percent of body fat and vice versa. "It's not just the weight, but the amount of body fat in the person that affects their health," Anderson said. "That is why adiposity is such an important measure of cardiovascular risk."

The researchers also found that mothers who consumed more than 4.5 grams of trans fats per day increased their own risk of excessive fat accumulation, independent of pre-pregnancy weight, by almost six times. This data suggests that trans fats intake could have a more significant weight-gain effect on breastfeeding mothers than it does at other times in their lives, Anderson said.

The researchers studied 96 women, many of whom were highly educated non-

Hispanic white women, and note that the study should be replicated in a larger, more diverse group to strengthen information about the health dangers of eating trans fats. "It would help to be able to follow the child from when the mother was pregnant, through birth, and then adolescence, so that we can confirm what the type of infant feeding and maternal diet during breastfeeding have to do with the recent epidemic of childhood obesity," said Anderson.

SOURCE [1]

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