Title: Maternal Added Sugar Intake is Positively Associated with Infant Adiposity and Weight Status at 6 Months
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Background: Specific recommendations for added sugar in pregnancy and lactation are lacking, but the 2015 Dietary Guidelines for Americans recommend limiting added sugar intake to <10% total daily caloric intake. We examined associations between added sugar intake during pregnancy and lactation and infant nutritional status.

Methods: 292 mother-infant dyads from the prospective MILK Study were included (100% of whom exclusively breastfed for 1 month and 75% exclusively breastfed to 6 months). Average added sugar intake (grams/day) was obtained using the NCI Diet History Questionnaire II during pregnancy and lactation, and was also categorized as meeting or exceeding the 2015 guidelines. Multiple linear regression analyses tested the relationship between added sugar intake and infant percent body fat using dual energy x-ray absorptiometry, and infant length for age, weight for age, and weight for length z-scores at 6 months. Models were adjusted for numerous potential confounders (maternal BMI, gestational weight gain, calories, and infant feeding).

Results: Average added sugar intake was 71 g/day (SD 22.3) and 61% of women met added sugar guidelines. Added sugar intake was positively associated with infant weight for length z-scores at 6 months (B: 0.01; p = 0.0465). Infants of mothers who exceeded the added sugar intake recommendation had higher percent body fat at 6 months (B: 0.84; p = 0.03).

Conclusions: Maternal dietary intake of added sugar is associated with increased infant adiposity and weight for length z-scores at 6 months in a cohort of exclusively breastfed infants.