

Cheslack-Postava K, Liu K, Bearman PS. Closely Spaced Pregnancies Are Associated With Increased Odds of Autism in California Sibling Births. *Pediatrics*, Feb 2011; **127**: 246 - 253..

This interesting study raises a red flag for pediatricians who see siblings born less than 12 months apart and the increased risk for Autism Spectrum Disorder in the second child. Previous studies have shown an association between autism and pregnancy and/or birth complications. It has been suggested that these complications indicate a suboptimal prenatal environment related to the short interval between pregnancies . This study examines the idea that the interpregnancy interval (IPI) may affect the prenatal environment resulting in an increase in autism risk.

Included in this study were 662,730 pairs of first and second-born full siblings from singleton pregnancies in California between 1992 and 2002. All data was from the California Birth Master Files and the California Department of Developmental Services (CA DDS). It is estimated that the CA DDS serves 80% of the children with autism in the state. For study purposes, IPI was calculated as the number of days between the date of the first birth and the date of the second birth minus the gestational age of the second born child, thus giving the interval between delivery of the first child and conception of the second child.

Analysis showed an inverse association between IPI and odds of autism in all categories. IPI less than 12 months was associated with a more than threefold elevated risk for autism (odds ratio 3.39 or a risk of 1/32 births). For IPIs of 12 to 23 months and 24 to 35 months, the odds ratios were 1.86 and 1.26 respectively. For IPIs greater than 36 months, the odds ratios were not significantly different from 1. These associations were not found to be related to preterm birth or low birth weight and were found across sociodemographic categories.

The authors suggest that the association with IPI may be due to an alteration in maternal physiology associated with shorter IPIs and suggest specifically a relationship with folate levels.