

Moderate amounts of caffeine during pregnancy do not harm baby's IQ, study shows

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Women drinking and eating moderate amounts of caffeine during pregnancy should be reassured that they are not harming their child's intelligence, according to a study from The Research Institute at Nationwide Children's Hospital that was published in the *American Journal of Epidemiology*. The research, one of the first studies to focus on how in utero caffeine exposure affects a child's future intelligence (IQ) and behavior later in childhood, found caffeine did not lead to a reduced IQ or increased behavioral problems.

"We did not find evidence of an adverse association of maternal [pregnancy caffeine](#) consumption with child cognition or behavior at 4 or

7 years of age," said Mark A. Klebanoff, MD, principal investigator in the Center for Perinatal Research at the Research Institute at Nationwide Children's and faculty member at The Ohio State University College of Medicine.

Researchers analyzed a marker of caffeine in the blood of 2,197 expectant mothers who took part in the Collaborative Perinatal Project, conducted at multiple sites in the United States in 1959-74. According to the researchers, this was an era when coffee consumption during pregnancy was more prevalent than today, as there was little concern regarding the safety of caffeine. Therefore, the study was able to investigate a broader range of [caffeine intake](#) than if a similar study was done today.

Researchers looked at the association between a chemical called paraxanthine, caffeine's primary metabolite, at two points in pregnancy. They compared those levels to the child's IQ and behavior at 4 and 7 years of age.

Researchers found there were no consistent patterns between maternal caffeine ingestion and the development and behavior of those children at those points in their lives.

This study follows previous research regarding caffeine consumption during pregnancy conducted at The Research Institute at Nationwide Children's. Dr. Klebanoff and Sarah Keim, PhD, co-author and principal investigator in the Center for Biobehavioral Health at the Research Institute at Nationwide Children's, published a study in *Epidemiology* in March 2015 involving the same group of women from The Collaborative Perinatal Project and found that increased ingestion of caffeine during pregnancy did not increase the risk of childhood obesity.

Of the children in the study, about 11 percent were considered obese at 4

years and about 7 percent at 7 years. However, the researchers found no associations between their mother's caffeine intake and these occurrences of obesity.

"Taken as a whole, we consider our results to be reassuring for pregnant women who consume moderate amounts of caffeine or the equivalent to 1 or 2 cups of coffee per day," said Dr. Keim, who is also a faculty member at The Ohio State University College of Medicine.

Provided by Nationwide Children's Hospital

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