

Prenatal lifestyle interventions found to improve child neurodevelopmental outcomes

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Maternal structured lifestyle interventions during pregnancy based on a

Mediterranean diet or mindfulness-based stress reduction (MBSR) improve child neurodevelopmental outcomes at age 2 years, according to a study published online on Aug. 22 in *JAMA Network Open*.

Francesca Crovetto, M.D., Ph.D., from the University of Barcelona in Spain, and colleagues examined whether structured interventions based on a Mediterranean diet or MBSR during pregnancy improve child neurodevelopment at age 2 years in a prespecified analysis of a parallel-group randomized clinical trial.

A total of 1,221 singleton pregnancies with a high risk for developing newborns who were small for gestational age were randomly assigned to a Mediterranean diet intervention, including educational sessions and free provision of extra virgin [olive oil](#) and walnuts; an MBSR program adapted for pregnancy; or usual care per institutional protocols.

Neurodevelopment was assessed in 626 children at a mean age of 24.8 months. The researchers found that children in the Mediterranean diet group had higher scores in the cognitive and social-emotional domains than children from the usual care group (β , 5.02 and 5.15, respectively), while children from the stress reduction group had higher scores in the social-emotional domain (β , 4.75).

"These results need replication in further randomized [clinical trials](#) as well as assessment in additional patient populations," the authors write.

Several authors disclosed ties to the pharmaceutical, nutrition, and other industries.

More information: Francesca Crovetto et al, Effect of a Mediterranean Diet or Mindfulness-Based Stress Reduction During Pregnancy on Child Neurodevelopment, *JAMA Network Open* (2023). [DOI: 10.1001/jamanetworkopen.2023.30255](https://doi.org/10.1001/jamanetworkopen.2023.30255)

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