

News and Views

Anandaradje Annuja*

Ph. D Scholar, Department of Clinical Pharmacology, JIPMER, , Puducherry, INDIA.

*Correspondence

Ms. Anandaradje Annuja

Ph. D Scholar, Department of Clinical Pharmacology, JIPMER, Puducherry, INDIA.

Email: annujanandaradje@gmail.com

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NEWS

Maternal Consumption of Nut Boosts Foetal Neurodevelopment

Maternal intake of nut at higher levels in early pregnancy is associated with enhanced neuropsychological development in offsprings at 1.5, 5 and 8 years old. A diet deficient in nuts and seeds accounts to leading dietary risk for Disability-Adjusted Life Years (DALYs).^[1]

Depression and mild cognitive disorders are negatively correlated with dietary pattern with nuts as a primary component. The essential fatty acids or nutritional components like folic acid compose the healthful nut. During human gestation, the brain undergoes a number of puzzling process for which maternal nutrition appears to be the prime factor that contributes to an adequate foetal neurodevelopment with long-term effects.^[2]

The nut consumption in the Spanish population includes mostly almonds and walnuts (prime source of ALA- Alpha Lipoic Acid).^[3] ALA- a widely distributed protein in the brain necessitates crucial number of functions such as neuronal maintenance and neurogenesis. In addition, the learning and memory, brain plasticity and brain-derived neurotrophic factor (BDNF) is elicited on ALA supplementation.^[4]

Thus, the reality of insufficient beneficial nutrients in pregnant woman will additionally have long-term functional consequences during child development.

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VIEWS

Maternal Intake of Nuts in Pregnancy Improves Cognitive Function in Children

Tuck in! A handful of nuts a day, if you are expecting to lower your baby's risk of developing cognitive impairments. For the first time, links have been observed between a nut-rich maternal diet during the first trimester of pregnancy and better outcomes after birth in cognitive function, attention capacity and long-term working memory. A study recently published in the *European Journal of Epidemiology*, analysed the association of maternal nut intake (walnuts, almonds, peanuts, pine nuts and hazelnuts) during pregnancy with child neuropsychological outcomes including child global cognitive functioning, attention and working memory. Nuts are enriched with folic acid, especially in essential fatty acids like Omega-3 and Omega-6, which tend to accumulate in the neural tissues influencing the memory and executive functions of the brain. Omega-3 fatty acid requirements increase in pregnant women compared to the requirement in non-pregnant women. These fatty acids play a key role in the timing of gestation as well as birth weight of new-borns. Likewise, folic acid is particularly important during the early phase of pregnancy as this B vitamin helps form the neural tube. Folic acid deficiency can lead to serious birth defects (such as anencephaly and spina bifida) in the brain and spine.

Therefore, a nut-rich maternal diet during pregnancy links to a small positive association with child neurodevelopment, with more reliable results seen for cognitive development.