

A Mediterranean Diet during Pregnancy is Associated with Lower Risk of Accelerated Growth for the Child

Over 2,700 women and their children participated in this study that highlights the benefits of a healthy diet

Barcelona, 3 December, 2018.- **Pregnant women that follow a Mediterranean diet** have a **lower risk of having children with an accelerated growth pattern** (i.e. a high birth weight and an accelerated weight gain in childhood), which could lead to a higher risk of obesity later on. This is the main conclusion of a study coordinated by the Barcelona Institute for Global Health ([ISGlobal](#)), an institution supported by the “la Caixa” Foundation.

The **Mediterranean diet** is characterised by a high content of fruits, vegetables, olive oil, legumes and nuts. This healthy diet pattern has been associated with lower obesity and cardiometabolic risk in adults, but few studies have focused on children.

This [study](#), published in *The Journal of Pediatrics*, aimed at evaluating the association between adherence to a Mediterranean diet during pregnancy and growth patterns and cardiometabolic risk in early infancy.

The study was performed with data of **over 2,700 pregnant women from Asturias, Guipúzcoa, Sabadell and Valencia (Spain)**, who are part of the INMA-Childhood and Environment cohort. The women filled in a questionnaire on dietary intake in the first and third trimester of pregnancy. In addition, the diet, weight and height of their offspring were followed-up from birth to age 4 years. Other tests such as blood analysis and blood pressure were also performed at age 4.

The results show that **pregnant women with higher adherence to the Mediterranean diet had a 32% lower risk of having children with an accelerated growth pattern**, as compared to offspring of women that did not follow such diet.

Sílvia Fernández, ISGlobal researcher and first author of the study, underlines that “mothers with lower adherence to the Mediterranean diet were younger, consumed more calories, and had higher probability of smoking and a lower education and social level,” as compared to those women who did follow the diet”.

“These results support the hypothesis that a healthy diet during pregnancy can have a beneficial effect for child development,” concludes the study coordinator **Dora Romaguera**, researcher at ISGlobal and CIBEROBN. Regarding the mechanisms that underlie this association, the researcher mentions “possible epigenetic modifications that regulate foetal cardiometabolism, or shared eating patterns between mothers and children, although this deserves further investigation.”

The study did not find a correlation between Mediterranean diet in pregnancy and a reduction in cardiometabolic risk (blood pressure or cholesterol) in early infancy. “The effects on cardiometabolic risk could appear later in childhood,” explains Fernández.

Reference

Fernández-Barrés S, Vrijheid M, Manzano-Salgado CB, Valvi D, Martínez D, Iñiguez C, Jimenez-Zabala A, Riaño-Galán I, Navarrete-Muñoz EM, Santa-Marina L, Tardón A, Vioque J, Arija V, Sunyer J, Romaguera D; Infancia y Medio Ambiente (INMA) Project. The Association of Mediterranean Diet during Pregnancy with Longitudinal Body Mass Index Trajectories and Cardiometabolic Risk in Early Childhood. *The Journal of Pediatrics*. 2018 Nov 12. [doi: 10.1016/j.jpeds.2018.10.005](https://doi.org/10.1016/j.jpeds.2018.10.005).

About ISGlobal

The Barcelona Institute for Global Health, ISGlobal, is the fruit of an innovative alliance between the “la Caixa” Foundation and academic and government institutions to contribute to the efforts undertaken by the international community to address the challenges in global health. ISGlobal is a consolidated hub of excellence in research that has grown out of work first started in the world of health care by the Hospital Clínic and the Parc de Salut MAR and in the academic sphere by the University of Barcelona and Pompeu Fabra University. The pivotal mechanism of its work model is the transfer of knowledge generated by scientific research to practice, a task undertaken by the institute’s Education and Policy and Global Development departments. ISGlobal a member of the CERCA programme of the Generalitat de Catalunya.

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