



Nutritional Study Of Spanish Children Recommends Fish In Pregnancy To Protect Against Asthma And Allergies

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Giving children a diet rich in fish and "fruity vegetables" can reduce asthma and allergies, according to a seven-year study of 460 Spanish children, published in the September issue of *Pediatric Allergy and Immunology*.

The findings also reinforce the researchers' earlier findings that a fish-rich diet in pregnancy can help to protect children from asthma and allergies.

"We believe that this is the first study that has assessed the impact of a child's diet on asthma and allergies and also taken into account the food their mother ate during pregnancy" says lead author Dr Leda Chatzi from the Department of Social Medicine at the University of Crete, Greece.

"Because we studied the children from pregnancy to childhood, we were able to include a wide range of elements in our analysis, including maternal diet during pregnancy, breastfeeding, smoking, the mother's health history, parental education and social class."

Researchers followed the progress of the children, on the Spanish island of Menorca, at regular intervals from before they were born until they were six-and-a-half.

They discovered that children who consumed more than 40 grams of "fruity vegetables" a day -- namely tomatoes, eggplants (aubergines), cucumber, green beans and zucchini (courgettes) -- were much less likely to suffer from childhood asthma.

And children who consumed more than 60 grams of fish a day also suffered less childhood allergies, echoing the protective effects they experienced when their mothers ate fish during pregnancy.

However the researchers noted that the dietary effects were quite specific and that other fruits and vegetables examined did not provide the same protective effect. Nor did other food groups included in the study, such as dairy products, meat, poultry and bread.

The mothers of 232 boys and 228 girls, who had been recruited during antenatal classes, completed detailed questionnaires on their children's health, weight, diet and any breathing problems every year until their child was six-and-a-half.

90 per cent of the children also underwent allergy testing -- skin prick tests were used to check their response to the six most common allergens, including grass pollen and cats.

The researchers found that just under nine per cent of the children suffered from some degree of wheezing, including six per cent with an allergy-related wheeze. And 17 per cent reacted to at least one of the allergens in the skin prick test.

"After adjusting the results for a wide range of variables, we concluded that the link between symptom-free children and a diet rich in fruity vegetables and fish was statistically significant" says Dr Chatzi.

"The biological mechanisms that underlie the protective affect of these foods is not fully understood, but we believe that the fruity vegetables and fish reduce the inflammation associated with asthma and allergies.

"The interesting thing about this study is that it followed a large number of children from the womb to the age of six-and-a-half and incorporated a wide range of dietary, social and health factors" says the Journal's Editor, Professor John Warner, Head of the Department of Paediatrics at Imperial College London.

"It provides parents with specific advice about the health promotion benefits of including fish and fruity vegetables as part of a balanced diet for both their children and the rest of the family."

Article adapted by Medical News Today from original press release.

* Diet, wheeze and atopy in school children in Menorca, Spain. Chatzi et al. *Pediatric Allergy and Immunology*. 18, pages 480 to 485. (September 2007)

* *Pediatric Allergy and Immunology* publishes original contributions and comprehensive reviews on the understanding and treatment of immune deficiency and allergic inflammatory and infectious diseases in children, the development of specific and accessory immunity and the immunological interaction during pregnancy and lactation between mother and child. It aims to promote communication between scientists engaged in basic research and clinicians working with children and publishes both clinical and experimental work. Edited by Professor John Warner of Imperial College London it is published eight times a year by Wiley-Blackwell. <http://www.blackwell-synergy.com/loi/PAI>

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