

Fish intake may protect children from allergies

October 28 2016, by Mia Malmstedt

Eating oily fish while pregnant or breastfeeding may protect your child from allergies. Likewise, kids who eat fish, eggs and flour early in life have less allergies, according to new findings from the division of Food and Nutrition Science at Chalmers.

Children raised on farms are very seldom allergic. With this in mind, the Farmflora Birth cohort was established to find the reasons behind the fact.

Karin Jonsson, who is now presenting her doctoral thesis, used the Farmflora Birth cohort to take a closer look at dietary factors that might explain why the farm-raised children do not develop allergies. But the strongest connection she found had nothing to do with farms.

"At birth, and again at four months of age, the healthy children had higher proportions of the [omega-3 fatty acid](#) eicosapentaenoic acid, EPA, in their blood. The levels corresponded with the mother's intake of fatty [fish](#); the mothers of children with high proportions of omega-3 in the blood had been eating a lot of fish during pregnancy and lactations, and we could also see evidence of this in their breastmilk," she explains.

The children's intake of seafood at one year of age was also associated with lower frequency of [allergy](#), but the connection was weaker.

"This is a small observational study. We need bigger studies – and clinical ones – to be more certain. But my results are in line with other

studies involving fish. Fish intake in the family seems to reduce the risk of allergies," Jonsson says.

The research also indicates that children introduced to fish and eggs before 11 months of age had a lower risk of developing allergies. Also, it seems beneficial to introduce flour as early as possible, although none of the children had flour before the age of four months. This is especially interesting with regard to the dietary recommendations for infants, which has been changed several times.

"The Swedish National Food Agency recommends full breastfeeding until the child is six months. But we see that there might be reasons to introduce foods earlier, and full breast feeding seems to protect the child only in the three first months. More and more studies are now done and new recommendations is likely to come," Karin Jonsson says.

"Old recommendations about waiting to introduce foods even longer than six months are still given by some Child health centers. I would like to see consensus in the recommendations, as it seems to be negative to wait for too long."

The results showing that healthy kids had higher levels of omega-3 in their blood surprised Karin Jonsson, as fish eating is not directly linked to living on a farm. She thought that she would have been much more likely to find evidence connecting allergy and dairy products, but could only show weak links:

"Mothers at farms consumed more fatty dairy products and saturated fats during pregnancy and lactation, and so did their children by the age of one year, in comparison to the other mothers and children who ate more margarine. We were able to show a weak link between lower intake of margarine and lower risk of allergies, but this needs to be studied further. I would like to do clinical studies on the impact of butter

and margarine," Jonsson concludes.

The Farmflora Birth Cohort was started by professors Agnes Wold, Sahlgrenska Academy at the University of Gothenburg, and Ann-Sofie Sandberg, Chalmers University of Technology. The study is designed to find factors that contribute to allergy protection in the farming environment, since it is previously known that children raised on farms are very seldom allergic.

A total of 65 children were selected; 28 of them from dairy farms in Västra Götaland, Sweden, and 37 from the same countryside but not living on farms. The children were clinically examined by a pediatrician to establish any food allergies, asthma, eczemas or hay fever. Of the children living on [farms](#), only one was allergic at the age of three years (4 percent). In the control group, 10 out of 37 [children](#) (27 percent) had developed allergies at the same age.

Provided by Chalmers University of Technology

Citation: Fish intake may protect children from allergies (2016, October 28) retrieved 23 March 2023 from <https://medicalxpress.com/news/2016-10-fish-intake-children-allergies.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--