Fight asthma with fish

Children who start eating fish before the age of nine months are half as likely to develop asthma as ones who don’t.

This is indicated by a Swedish study comprising over 4,000 children born in 2003. Parents have responded to questionnaires in three stages - when their children were six months, one year and finally at four-and-a-half years.

When the children reached the age of 4.5 years, 20 percent of the parents answered that their kids had asthma symptoms, with wheezing in their respiratory passages at least once in the course of the past year.

The study is a part of a doctoral thesis by Emma Goksør at the Sahlgrenska Academy of the University of Gothenburg.

“One can experience these symptoms without being diagnosed with asthma, so we chose to focus the study on children who had asthma symptoms at least three times in the past year,” says Goksør.

This was the case with 5.5 percent of the 4,000 children. In other words, the study comprised around 220 children who had repeatedly suffered asthma symptoms in the past year.

“What we saw was that children who ate fish before the age of nine months had nearly halved their risk of suffering repeated asthma symptoms,” she explains.

Researchers haven’t tested which types of fish are most effective against asthma but the children in the study had mainly eaten white fish, such as cod. White fish amounted to 79 percent of the children’s fish consumption. Salmon came in second, comprising 17 percent of their intake.

Why does fish help against asthma?

“Some studies have indicated that fish positively affects the immune system because it contains Omega-3 fatty acid and Vitamin D. There are also studies showing that Omega-3 is not enough on its own, that you also need to eat fish, because an Omega-3 supplement doesn’t give the same yield. So there might be something in fish that has an impact but we haven’t identified it yet,” answers Goksør.

More fish, less eczema

Torbjørn Øien is a researcher at the Department of Public Health and General Practice at the Norwegian University of Science and Technology in Trondheim.

In a child allergy study in Trondheim, the PACT study, he found a link between cod liver oil and consumption of fish by mothers during their pregnancies, by children at age one and the incidence of asthma and eczema at age two.

He wrote in his doctoral thesis that in the past 30-40 years we’ve eaten less fish, while the incidences of
atopy and allergic disorders have increased.

Asthma is one of the most prevalent atopic diseases.

“We found a protective effect against eczema among children who had eaten fish more than once a week as compared to those who had eaten fish less often,” says Øien.

**Cannot make do with cod liver oil**

Øien also found indications that you actually have to eat fish and that Omega-3 alone does not help against eczema.

“There is no association between a mother’s intake of fish and cod liver oil during pregnancy and eczema at age two,” says Øien.

In the conclusion of the research report he offers three possible explanations for why fish is better than supplements:

- Fish isn’t just Omega-3-fatty acids. Fish and shellfish are fine sources of protein and rich in taurine, NADH and sterols and contain zinc, selenium, iodine, Vitamin D and Vitamin B12.
- Fish oil and cod liver oil are not adequate replacements for fish, and eating “natural” food is better than refined dietary supplements.
- Fish consumption during the first year is a sign of favourable lifestyles in these families, which we have not measured in our questionnaire.

In this Norwegian study no connection was found between intake of fish and medical diagnoses of asthma at age two.

When comparing the child allergy study in Trondheim and the study in Sweden it should be emphasized that the researchers in the Norwegian study queried about medically diagnosed asthma, whereas in the Swedish study parents were asked whether they had observed asthma symptoms. So they did not necessarily entail a doctor’s diagnosis.

**Recommending fish for infants**

The Norwegian Directorate of Health recommends that children be introduced to solid foods when they around six months old.

In its brochure for parents with infants, “Mat for spedbarn” [Food for infants], the directorate writes that there is no reason to avoid foods such as eggs, fish, nuts or peas. Of course this doesn’t apply if the child has been diagnosed with an allergy against these foods.

“Fish should be included in a varied diet from the second half of an infant’s first year. At the age of one children can eat the same food as the rest of the family, if the diet is varied and balanced with the right ingredients. One should eat the equivalent of two to three dinner portions of fish a week,” says Henriette Øien, department director at the Directorate of Health.

She advises parents to always be on the lookout for any adverse symptoms when giving a child a new kind of food, for instance fish. If new foods are introduced to the child’s diet one by one it’s easier to discover whether there is something particular it reacts to. If the child’s general health changes, or parents are concerned in any way, she recommends they contact a doctor.

Now that Christmas is approaching, it’s smart to remember to be careful about giving nuts to small children, because they can get lodged in their throats.
Fish on the menu protects many Swedish children against asthma. (Photo: Colourbox) [7]

Researcher Emma Goksør detected a strong relationship between consumption of fish and a lower prevalence of asthma symptoms. (Photo: Göran Wennergren) [8]

Henriette Øyen and the Norwegian Directorate of Health recommend giving children fish from the age of six months. (Photo: HD) [9]

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