

Apples, fish during pregnancy may reduce kids asthma

21/05/2007 - **Eating apples and fish during pregnancy may reduce the risk of asthma and allergic diseases in children, suggests a new study from the UK.**

If the new results are confirmed in further studies, *"recommendations on dietary modification during pregnancy may help to prevent childhood [asthma](#) and allergy,"* said co-researcher Saskia Willers from Utrecht University in the Netherlands.

This study appears to support a growing body of science that has linked diet to asthma, a condition on the rise in the Western world and the most common long-term condition in the UK today. According to the charity Asthma UK, it affects over four million adults and over a million children.

Furthermore, the European Federation of Allergy and Airways Diseases Patients' Associations estimate that four per cent of adults and eight per cent of children in the 380m EU population suffer from food allergies.

The new research, presented at the American Thoracic Society 2007 International Conference, was conducted at the University of Aberdeen, and focused on 1,212 children born to women who had filled out food questionnaires during their pregnancy. When the children were 5 years old, the mothers completed a questionnaire about the children's respiratory symptoms and allergies, as well as a questionnaire about their child's food consumption.

Willers and her co-workers reported that children of the mothers who ate the most [apples](#) during pregnancy were less likely to ever have wheezed or have asthma at the age of 5 years, compared to children of mothers who had the lowest apple consumption. Moreover, children of mothers who ate [fish](#) once or more a week were less likely to have had eczema than children of mothers who never ate fish.

Unlike other studies on the subject, Willers and co-workers did not find any protective effect from foods such as vegetables, fruit juice, citrus or kiwi fruit, or whole grain products.

"Other studies have looked at individual nutrients' effect on asthma in pregnancy, but our study looked at specific foods during pregnancy and the subsequent development of childhood asthma and allergies, which is quite new," said Willers. *"Foods contain mixtures of nutrients that may contribute more than the sum of their parts."*

The beneficial effect of apples may come from the flavonoids content, said the researchers, while fish's protective effect may come from omega-3 fatty acids. Other studies have suggested these have a protective effect against heart diseases and asthma.

The research is in-line with previous studies that looked at the effects of diet on asthma development. Last year, Cambridge researchers reported that asthma in

adults could be associated with a low intake of the dietary antioxidants vitamin C and manganese.

Willers noted that further study of this group of children will be needed to see whether the association with the mothers' diet declines in older children, and if mothers' and their childrens' diets interact in older children.

Commenting independently on the research, Dr Victoria King, research development manager at Asthma UK said: *'This study suggests a simple modification that can be made to a pregnant mother's diet which may help protect her child from developing asthma before the age of five. The study supports our advice to pregnant mothers to eat a healthy, balanced diet.'*

"One in ten children in the UK has asthma so it is vital to continue funding research that could reduce the incidence of childhood asthma," she added.