

## Fishy, fruity diet may cut asthma risk

10/07/2007 - A diet rich in fruit, vitamins C and E, and omega-3 fatty acids may reduce the risk of respiratory conditions like asthma, chronic bronchitic symptoms, and wheeze says a new study.

The research, published in this month's issue of the journal *Chest*, adds to a growing body of science supporting that a healthy diet rich in anti-oxidants and vitamins is good for [asthma](#).

*"Our study, as well as other research, suggests that higher intakes of antioxidant and anti-inflammatory micronutrients are associated with lower reports of cough, respiratory infections, and less severe asthma-related symptoms,"* said researchers.

*"Teenagers who have low dietary intakes of [fruit](#), vitamin E, and [omega-3](#) fatty acids are at greater risk of having asthma, emphasizing the importance of a balanced diet, composed of whole foods,"* they added.

According to the European Federation of Allergy and Airway Diseases Patients Association (EFA), over 30m Europeans suffer from asthma, costing Europe €17.7bn every year. The cost due to lost productivity is estimated to be around €9.8bn.

The condition is on the rise in the Western world and the most common long-term condition in the UK today

According to the American Lung Association, almost 20m Americans suffer from asthma. The condition is reported to be responsible for over 14m lost school days in children, while the annual economic cost of asthma is said to be over \$16.1bn.

The researchers recruited 2,112 students aged 16 and 18 in 12 communities around the US and Canada (33 per cent were overweight, 72 per cent did not consume multivitamins, and about 25 per cent were daily smokers), and assessed the diet of the students using a standardised respiratory questionnaire and a dietary questionnaire. They also answered questions about medication use, smoking habits, and recent exercise, before participating in lung function testing.

*"During late adolescence, physical stature has, on average, been attained and lung growth closely parallels this growth. Therefore we were observing a time when lung function was close to its optimal capacity,"* said researchers.

*"Also, although our diet survey targeted eating habits only during the past year, it did give us some idea of the teens' general past diet. However, their current respiratory health may be a reflection of diet during childhood, as well as during the past year,"* she said.

The researchers report that at least one third of the students' diets were below the recommended levels of fruit, vegetable, vitamins A and E, beta-carotene, and omega-3 fatty acid intake.

*"Vitamin supplements can help teens meet their daily recommended levels,"* said researchers, *"and surprisingly, even relatively low levels of omega-3 fatty acids*

*appeared to protect teens from higher reported respiratory symptoms."*

Results showed that low dietary intakes of fruit, vitamins C and E, and omega-3 fatty acids were associated with decreased lung function and a greater risk of chronic bronchitic symptoms, wheeze, and asthma. These risks were further increased among students with the lowest intakes and who also smoked.

It has previously been proposed that the beneficial effect of fruit 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. During the past year, studies have been published that report increased intake of vitamins C and E, with some research suggesting that the mother's intake of such nutrients during pregnancy may have lifelong benefits for the respiratory health of the offspring.

Commenting independently on the research, Mark Rosen, president of the American College of Chest Physicians said: *"A balanced diet is not only good for lung health, but for general health. Parents and physicians should work together to monitor and maintain healthy diets and lifestyles for children of all ages."*