Medical Xpress

Eating fish may help prevent asthma

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A James Cook University scientist says an innovative study has revealed new evidence that eating fish can help prevent asthma.

Professor Andreas Lopata from JCU's Australian Institute of Tropical Health and Medicine, (AITHM) took part in the study which tested 642

people who worked in a fish processing factory in a small village in South Africa.

"Around 334 million people worldwide have asthma, and about a quarter of a million people die from it every year. In Australia, one in nine have asthma (about 2.7 million), and among Indigenous Australians this rate is almost twice as high.

"Asthma incidence has nearly doubled in the past 30 years and about half of asthma patients do not get any benefit from the drugs available to treat it. So there's a growing interest in non-drug treatment options," he said.

Professor Lopata said the current theory is that the dramatic change in diet worldwide is behind the rise of the disease.

"There is an increasing consumption of what is known as the n-6 Polyunsaturated Fatty Acid (PUFA) found in vegetable oils and a decline in consumption of n-3 PUFA, which is mainly found in marine oils.

Crudely, there has been a global move from fresh fish to fast food," he said.

Professor Lopata said the fishing village was chosen for the testing because it had a population with high fish consumption and low socioeconomic status, so it would be likely that marine oils from fish and other seafood would be the main source of n-3, rather than supplements.

"We found that certain types of n-3 (from marine oils) were significantly associated with a decreased risk of having asthma or asthma-like symptoms by up to 62%, while high n-6 consumption (from vegetable oils) was associated with an increased risk by up to 67%," he said.

He said it was more evidence of the suspected inflammatory role of n-6 in the development of asthma, and more evidence that n-3 gave significant protection.

"Even if you factor in contaminants such as mercury found in some fish populations, the benefits of fish and seafood intake far more outweighs the potential risks," said Professor Lopata.

He said further work needed to be done on what effect specific types of n-3 have and how their beneficial role could be optimised, and on minimising the negative effects of n-6.

More information: Shahieda Adams et al, Relationship between Serum Omega-3 Fatty Acid and Asthma Endpoints, *International Journal of Environmental Research and Public Health* (2018). DOI: 10.3390/ijerph16010043

Provided by James Cook University