

**Media release – 25 November 2007**

## **Eating Fish Reduces Diabetes Risk In Children**

**EATING seafood can halve children's risk of developing type-1 diabetes.**

This is the conclusion of an international study reported in the Journal of the American Medical Association (JAMA).

It said a diet rich in Omega-3 oils, found most abundantly in fish and other seafood, can cut the chances of at-risk children actually developing type-1 diabetes by 55%, a significant finding for children in Australia, where the rate of new cases is high compared with many other countries.

"This is the first study to show this type of association with childhood diet," said Dr Jill Norris, an epidemiologist at the University of Colorado and lead author of the report. "It provides exciting evidence that it may be feasible to have a nutritional intervention against the disease."

In Australia, Mr Roy Palmer, who has been co-ordinating the monitoring and distribution of information on health benefits of seafood on behalf of Seafood Services Australia for several years, said today it was an important discovery.

"Because type I diabetes is often inherited, researchers looked at high-risk kids — those who had a high-risk genotype or had a diabetic parent or sibling. They found that children who ate fish, nuts or other Omega-3 fatty acid sources were 55% less likely to become diabetic.

"This is particularly significant here in Australia, because the Federal Government's Australian Institute of Health & Welfare (AIHW) recently released figures showing the rate of new cases of type-1 diabetes in children here -- already high compared with other countries -- is increasing. (Reference 2.)

"The AIHW report showed that round 6,100 Australian children under the age of 15 developed type-1 diabetes over a seven-

year period, with the rate of new cases increasing significantly between 200 and 2005 from 19 up to 23 per 100,000 children.

"So, a major, long-term international medical research project that suggests there can be a nutritional intervention against the disease is very important for Australian children and parents."

Mr Palmer said the researchers still have questions to answer about exactly how Omega-3 oils prevent type-1 diabetes but believe it is due to anti-inflammatory properties in the Omega-3s. An inflammatory response is part of the early stages of diabetes.

And how much seafood should be eaten?

"The researchers studied more than 1,700 children for six years and their results suggest that higher consumption of total Omega-3s is associated with a lower risk but they did not suggest any particular trigger point," Mr Palmer said.

"Amongst the questions the researchers asked parents of the children involved was how often the children ate the equivalent of a portion (around 85 to 115 grams or 3 to 4 ounces) of fish, ranging from "never" to "six or more times a day".

"Specifically, they asked about the frequency of intake of canned Tuna, dark-meat fish (Mackerel, Salmon, Sardines, Tailor and Swordfish), other fish (not specified), and Prawns, Lobster and Scallops.

"The researchers found that 45 children in the group who did go on to develop type-1 diabetes were all amongst the lowest consumers of Omega-3 from seafood or other sources.

"Of course, anyone concerned about the risk of their children developing type-1 diabetes should consult their doctor for direct, personal advice.

"However, this latest study is further indication of the importance of seafood in the diet and builds on the large body of existing research indicating eating more seafood would improve the health of Australians of all ages."

**Note:**

For more details of this research, go to Journal of the American Medical Association (JAMA) 2007;298:1420-1428: "Omega-3 Polyunsaturated Fatty Acid Intake and Islet Autoimmunity in Children at Increased Risk for Type 1 Diabetes", Jill M. Norris, et al at <http://jama.ama-assn.org/cgi/content/abstract/298/12/1420>

For more details about the incidence of type-1 diabetes in Australian children, go to Australian Institute of Health & Welfare media release "More Australian children developing type 1 diabetes", 31 August 2007 at <http://www.aihw.gov.au/mediacentre/2007/mr20070831.cfm>