

How fish may reduce your child's breast cancer risk

May 8 2018, by David W.l. Ma And Jessie Burns



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Omega-3 fatty acids are commonly found in plant and seafood sources.



If you don't have high enough <u>levels of omega-3s in your diet, it's a</u> <u>leading risk factor for death</u> globally, contributing to the development of chronic diseases like cancer.

A healthy diet can <u>significantly reduce your risk of developing cancer</u>. This has led to great interest in the role of omega-3 fatty acids —especially in <u>the prevention of breast cancer</u>.

In experimental studies, it has been shown that <u>omega-3 fatty acids</u> <u>during early years of growth and development may play a role in</u> <u>reducing breast cancer risk later in life</u>.

But not all omega-3s are created equal.

Seafood sources eight times more potent

Structurally, omega-3 fatty acids found in plants and <u>seafood</u> are different molecules.

Much of our research to date suggests that the benefits of omega-3 fats can be attributed to those found in seafood including eicosapentaenoic <u>acid</u> (EPA) and docosahexaenoic acid (DHA). In contrast, omega-3 fatty acids in plants such as flax and canola containing alpha-linolenic acid (ALA) are thought to be less potent.

But scientists have never been sure exactly how much more potent seafood omega-3s are —until recently, when our team at the University of Guelph helped to shed light on this question.

We conducted a study in mice that compared the impacts of ALA versus EPA+DHA on tumour development. The results show that both were beneficial in altering mammary gland development to decrease the risk of developing <u>breast cancer</u>. They also decreased tumour size and



multiplicity following the onset of breast cancer.

The study shows <u>EPA+DHA to be eight times more potent than ALA</u>, however. This suggests that omega-3s from seafood sources may be significantly more effective at reducing <u>breast cancer risk</u> and improving prognosis.



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How much fish is enough?

So are we getting enough seafood-based omega-3s in our diet?



<u>A typical North American diet</u> provides approximately one to three grams of ALA per day and only 100-150 mg of EPA/DHA per day.

These amounts fall in line with <u>recommendations by the Institute of</u> <u>Medicine</u>.

A growing body of research suggests, however, that dietary intakes of EPA and DHA should be much higher in order to promote optimal health and prevent chronic disease.

This is not a new concept. In 1999, the National Institutes of Health's report recommended that, in order to promote optimal health and prevent disease, EPA+DHA should make up 0.3 per cent of our daily energy intake.

Based on this recommendation, the <u>DHA-EPA Omega-3 Institute</u> <u>reports</u> that this corresponds to 433 to 600 milligrams of EPA+DHA for children between the ages of one and eight years old.

This level can be attained in the diet by consuming two to three servings of fish per week, or by supplementing with a high quality EPA+DHA supplement.

Optimal doses for children

Intakes of seafood-based omega-3s in children differ from adults.

Previous studies have shown that <u>North American children have even</u> <u>lower intakes of EPA and DHA than adults</u>.

In fact, a study in the United States revealed that <u>84 per cent of children</u> <u>consume less than one serving of fish or seafood per week</u>.



So by incorporating more seafood or foods high in <u>omega-3 fatty acids</u> —such as omega-3 milk and eggs —early on in a child's life, it may be possible to reduce long-term risk of developing breast <u>cancer</u> and other common <u>chronic diseases</u> later in life.

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