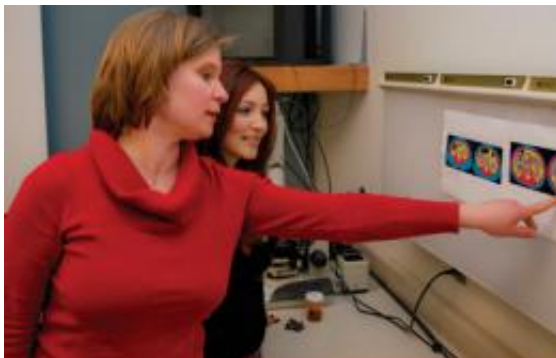


# Fish oil's fatty acids provide surprising benefits to lung cancer patients

7 March 2011, By Michel Proulx



Vera Mazurak and PhD student Rachel Murphy found that chemotherapy was more effective for lung cancer patients when they took fish oil daily.

(PhysOrg.com) -- New research has revealed that daily doses of fish oil for lung cancer patients improve the efficiency of chemotherapy, may contribute to increased survival and help prevent muscle and weight loss that commonly occurs.

Vera Mazurak, a nutrition and metabolism expert in the Department of Agricultural, Food and Nutritional Science at the University of Alberta, led the study that examined various effects of fish oil, specifically the two [fatty acids](#) in fish oil, on [lung-cancer](#) patients undergoing [chemotherapy](#).

In the first instance, they compared the effectiveness of the chemotherapy in shrinking tumours and the rate of survival after one year. In the group of 15 patients who received fish oil on a daily basis, 60 per cent saw a reduction in the size of their cancerous tumour compared to 28.5 per cent who obtained the same result from the control group of 31 who did not receive fish oil.

In addition, 60 per cent of the group who took fish oil survived beyond a year compared to 39 per cent of the group that didn't take it.

In the second instance, the research team examined another group of lung-cancer patients, some of them overlapping with the first group, and looked at the effects of fish oil on weight, muscle and fat tissue.

The trial involved 16 patients who took fish oil (2.2 grams of eicosapentaenoic acid per day) and 24 patients who did not.

The researchers found that 69 per cent of patients taking fish oil maintained or gained muscle mass compared to 29 per cent from the group who didn't receive the fish oil. Patients who did not take fish oil lost an average of 2.3 kilograms whereas patients receiving fish oil maintained their weight.

Cancer patients undergoing chemotherapy often lose weight and muscle mass. According to the National Cancer Institute, 20 to 40 per cent of [cancer patients](#) die from malnutrition as opposed to the tumour. Researchers suspect that supplementing the diet with fish oil - which contains omega-3 fatty acids such as eicosapentaenoic acid - may help patients maintain or gain muscle.

"Fish oil may prevent loss of weight and muscle by interfering with some of the pathways that are altered in advanced cancer," said Mazurak. "This holds great promise because currently there is no effective treatment for cancer-related malnutrition."

Mazurak noted that fish oil is safe and non-toxic with virtually no side effects.

She added that fish oil may be beneficial to patients with other forms of cancer and other chronic diseases that are associated with malnutrition, as well as to elderly individuals who are at risk for muscle loss.

**More information:** The research was recently published online in *CANCER*, a peer-reviewed journal of the American Cancer Society.

Provided by University of Alberta

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