

Researchers Find Flaxseed Can Slow Tumor Growth In Breast Cancer Patients

A muffin a day—with 50 grams of ground flaxseed—could keep breast cancer at bay, according to a new Canadian study. The researchers found there was a “slowing down in tumor growth” in breast cancer patients fed flaxseed muffins.

“Our results are very exciting because this is the first time anyone has demonstrated these changes in breast cancer with any dietary component,” said Dr. Paul Goss, director of the breast cancer prevention program at Princess Margaret Hospital and the Toronto Hospital.

Earlier animal studies have shown that flaxseed has anti-cancer properties, but the researchers were surprised by how potent the effect appears to be in people.

“It encourages us to believe this is a very significant biological effect in women and we are heading towards more definitive proof that dietary flaxseed may prevent breast cancer,” Goss said.

Goss presented his research team’s finding in January at an international breast cancer conference in San Antonio, Tex.

The study involved 50 women who had been recently diagnosed with breast cancer. While waiting for their surgery, the women were divided into two groups. One group received a daily muffin containing 50 grams of ground flaxseed, about 30 milliliters (two tablespoons). The others were prescribed ordinary muffins.

When their tumors were removed—usually within 40 days of diagnosis—the researchers examined them for signs of how fast the cancer cells had been growing. It turned out that the women receiving the flaxseed muffins had slower-growing tumors than the others.

Confirms Other Recent Work

This study supports the recent work of French researchers who have similarly found that low levels of the omega-3 fatty acid alpha-linolenic acid, (of which flax is perhaps the richest source) predicts increased risk of breast cancer.¹ The French study was published in the February 2000 issue of the European Journal of Cancer.

This case-control study conducted in central France was designed to explore whether alpha-linolenic acid inhibits breast cancer, using fatty acid levels in adipose breast tissue as a biomarker of it’s intake. Biopsies of adipose breast tissue at the time of diagnosis were obtained from 123 women with invasive non-metastatic breast carcinoma, while 59 women with benign breast disease served as controls. No association was found between fatty acids in general and the disease, except for alpha-linolenic acid. Women with the highest levels of alpha-linolenic acid experienced a 74 percent reduced risk for breast cancer,

compared with those women with the lowest intake, thus, say the researchers, “suggesting a protective effect of alpha-linolenic acid in the risk of breast cancer.”



Recent Experimental Evidence

Additional research from the Department of Nutritional Sciences, Faculty of Medicine, University of Toronto, Ontario, Canada, further confirms the amazingly potent benefits of flax constituents, especially the prized lignans found in flaxseed and lignan-rich flax oil, when it comes to breast cancer prevention.² Very often, breast tumors are the result of both environmental and intrinsic inner factors, that is, an environmental contaminant can initiate cancer processes or promote future cancerous processes by damaging the genetic structure of the cell so that it becomes susceptible to cancer. In their experimental study, the Canadian researchers wanted to know whether even higher dietary amounts of flaxseed or its lignan constituents could reduce chemically induced breast tumors. The researchers determined that flax’s lignans were the most potent constituents of flax for reducing tumor size and number. Interestingly, these results may have been skewed somewhat, say the researchers, by the control diet, which consisted of a high amount of soy oil, relatively rich in alpha-linolenic acid.

Natural Estrogen Buffer

The power of flax to reduce breast cancer risk and risk of it’s spread, lies in it’s lignan and alpha-linolenic acid contents. Plant lignans are nature’s natural estrogen buffers. They appear to reduce the most potent toxic effects of some forms of estrogen. In the industrialized nations, lignan levels in women’s bodies are generally very low; yet, women’s bodies have evolved over millions of years in such a way that they require this buffering effect.

“I’ve been recommending flax seeds and flax seed oil for years,” says Christiane Northrup, M.D., one of America’s leading experts on women’s health. “Flax seed is the highest known source of anti-cancer and phytoestrogenic compounds known as lignans—a concentration more than 100 times greater than other lignan-containing foods such as grains, fruits, and vegetables. Lignans are plant substances that get broken down by intestinal bacteria into two main mammalian lignans—enterodiols and enterolactone. These lignans then circulate through the liver and

are later excreted in the urine. There are a number of reasons why we all should be interested in incorporating more lignans into our diet. The following are some of the most compelling:

- Lignans have potent anti-cancer effects. An impressive number of studies have shown that flax seed lignans are very potent anti-cancer agents for both breast and colon cancer because of their ability to modulate the production, availability, and action of hormones produced in our bodies.
- Lignans are potent phytoestrogens. In women who consume flax seed oil, studies have shown significant hormonal changes and decreased estradiol levels—alterations similar to those seen with soy isoflavones. This makes flax seed oil or meal a great choice for women who can't use soy or who simply want another source of phytohormones."

The role of alpha-linolenic acid in breast cancer prevention and reduced risk of it's spread may be due to its potent membrane-stabilizing effects, it's ability to act as an anti-inflammatory and it's ability to normalize the body's production of specific cancer-promoting prostaglandins.

The Doctors' Prescription

Use organic flaxseeds that are cold-milled from select flaxseeds for baking and use lignan-rich flaxseed oil as a salad dressing, in smoothies, with yogurt and as a spread on bread and muffins.

How to Find the Best Lignan Flax Oil

Flax oil should be thought of as a perishable food item and it should be handled as such. Flax oil should not be warehoused for long periods or exposed to extreme temperature variations. Such changes can cause flax to lose potency, reduce its taste, and even cause it to become rancid. Follow our recommendations for selecting the best quality lignan-rich flax oil.

Be sure the company that produces your flax is **M.A.D.** about fresh lignan-rich flax oil. Here's what to look for when it comes to being **M.A.D.** about fresh flax oil:

➤ **Made To Order.** Be sure your flax oil is made to order. Most nutritional oil companies rely on third-party distributors to stock, inventory and ultimately deliver their products to market, sometimes months after manufacturing. For this reason, most flaxseed oil today is dated for freshness for up to one year. This is too long for a perishable, electron-rich, live food, like flaxseed oil. What's more, these products are typically shipped by ground transportation resulting in prolonged delivery and conditions such as high heat that may degrade the oil. Worse yet, some companies have resorted to refining and/or filtering their oil in order to artificially extend shelf life. Be sure your flax oil is made to order, and that the oil is pressed the day it is ordered.

➤ **Air Delivered.** Once fresh pressed, be sure your flax oil is rushed by air delivery, manufacturer-direct, to your favorite natural health center or health professional, arriving within days of being made.

➤ **Dated For Freshness.** Be sure your flax oil comes coded with both a Fresh Pressed date and a Freshest Before date stamp spanning a period of only four months for maximum potency and freshness. Prolonged distributor delivery and warehoused product makes it necessary for other brands to date stamp their oil for six to twelve months. Good for them, not so good for you.

This service is called Fresh ExPress and it guarantees you the absolute freshest flax oil anywhere. You will find this type of extremely high-quality, lignan-rich, flax oil in the refrigerator sections of natural health centers nationwide.

References:

1. Klein, V., et al. "Low alpha-linolenic acid content of adipose breast tissue is associated with an increased risk of breast cancer." , 2000;36(3):335-340.
2. Rickard, S.E., et al. "Dose effects of flaxseed and its lignan on N-methyl-N-nitrosourea-induced mammary tumorigenesis in rats." , 1999; 35(1):50-57.

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