## FLAX SEEDS AND FLAX OIL

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## Topics you will find:

Fabulous Flax: the Rich Nutrients in Flax 7 Health-promoting Properties of Flax Using Flax Oil

Flax oil and flax seeds are being rediscovered as true health foods. They definitely merit being included on any top-ten list of foods that are good for you. Flax is not a new food. It is actually one of the older and, perhaps, one of the original "health foods," treasured because of its healing properties throughout the Roman empire. Flax was one of the original "medicines" used by Hippocrates. Flax could be dubbed the "forgotten oil." It has fallen out of favor because oil manufacturers have found nutritious oils to be less profitable. The very nutrients that give flax its nutritional benefits - essential fatty acids - also give it a short shelf life, making it more expensive to produce, transport, and store. Yet, those who are nutritionally in the know continue to rank flax high on the list of "must have" foods. Because of the flurry of scientific studies validating the health benefits of omega 3 fatty acids, flax oil has graduated from the refrigerator of "health food nuts" to a status of scientific respectability.

I seldom leave home in the morning without having my daily tablespoon of flax oil or 2 tablespoons of flaxseed meal. Besides being the best source of omega 3's, flax oil is a good source of omega 6, or linoleic acid (LA). Sunflower, safflower, and sesame oil are greater sources of omega 6 fatty acids but they don't contain any omega-3 fatty acids. Flax oil is 45 to 60 percent the omega-3 fatty acid alphalinolenic acid (ALA).

In addition to nutritious fats, flax seeds contain other nutrients which make eating the whole seed superior to consuming just the extracted oil:

- Flax seeds contain a high quality protein.
- Flax seeds are rich in soluble fiber. The combination of the oil and the fiber makes flaxseeds an ideal laxative.
- Flax seeds contain vitamins B-1, B-2, C, E, and carotene. These seeds also contain

iron, zinc, and trace amounts of potassium, magnesium, phosphorus, calcium, and vitamin E and carotene, two nutrients which aid the metabolism of the oil.

• Flax seeds contain over a hundred times more of a phytonutrient, known as lignin, than any of its closest competitors, such as wheat bran, buckwheat, rye, millet, oats, and soybeans. Lignins have received a lot of attention lately because of possible anti-cancer properties, especially in relation to breast and colon cancer. Lignins seem to flush excess estrogen out of the body, thereby reducing the incidence of estrogen-linked cancers, such as breast cancer. Besides anti-tumor properties, lignins also seem to have antibacterial, antifungal, and antiviral properties.

Flax seeds, because they contain some protein, fiber, vitamins and minerals, and lignins, are more nutritious than their oil. Yet, for practical purposes, most consumers prefer simply using the oil for its omega-3 fatty acids and not having to bother with grinding the seeds. But nutritionally speaking, it's worth the trouble to grind fresh flax seeds (say, in a coffee grinder) and sprinkle them as a seasoning on salads or cereals, or mix them into muffins. When buying seeds, be sure they are whole, not split; splitting exposes the inner seed to light and heat and decreases the nutritional value. Or, buy pre-ground flax seeds, available as flaxseed meal. One ounce of flaxseed meal (approximately 4 tbsp.) will yield about 6 grams of protein, and 8 grams of fiber.

Flax oil, flax seeds, and the omega-3 fatty acids they contain are good for your health. Here are some of the ways flax helps your body.

- **1. Flax promotes cardiovascular health.** The ultra-high levels of omega-3 fatty acids lower LDL (bad) cholesterol levels. Fish oils and algae are also good sources of essential fatty acids.
- **2. Flax promotes colon health.** It has anti-cancer properties and, as a natural lubricant and a rich fiber source, it lowers the risk of constipation.
- **3. Flax supplements can boost immunity.** One study showed that school children supplemented with less than a teaspoon of flax oil a day had fewer and less severe respiratory infections than children not supplemented with flax oil.
- 4. Flax provides fats that are precursors for brain building. This is especially important at the stage of life when a child's brain grows the fastest, in utero and during

infancy. A prudent mom should consider supplementing her diet with a daily tablespoon of flax oil during her pregnancy and while breastfeeding.

**5. Flax promotes healthy skin.** I have used flax oil as a dietary supplement in my patients who seem to have dry skin or eczema, or whose skin is particularly sunsensitive.

## 6. Flax may lessen the severity of diabetes by stabilizing blood-sugar levels.

- 7. Flax fat can be slimming. Fats high in essential fatty acids, such as flax, increase the body's metabolic rate, helping to burn the excess, unhealthy fats in the body. Eating the right kind of fat gives you a better fighting chance of your body storing the right amount of fats. This is called thermogenesis, a process in which specialized fat cells throughout the body (called brown fat) click into high gear and burn more fat when activated by essential fatty acids, especially gamma-linolenic acid (GLA). I have personally noticed that I crave less fat overall when I get enough of the healthy fats. A daily supplement of omega 3 fatty acids may be an important part of weight control programs.
  - Don't use flax oil for cooking. Oils high in essential fatty acids are not good for cooking. In fact, heat can turn these healthy fats into harmful ones. Add flax oil to foods after cooking and just before serving.
  - Flax has many virtues, but it also has one vice: it turns rancid quickly. Healthy fats spoil quickly, with olive oil being an exception to the rule. (The fats with a long shelf life are the hydrogenated shortenings, which of course are bad for you.) To prevent spoilage, follow these tips:
    - Purchase only refrigerated flax oil stored in black containers.
    - Keep your flax oil in the refrigerator with the lid on tight. Minimize exposure to heat, light, and air.
    - Because the oil is likely to turn rancid within six weeks of pressing, buy flax oil
      in smaller containers (8-12 ounces, depending on how fast you use it). In our
      family, we go through approximately four tablespoons of flax oil a day, using it
      mainly in our School-Ade smoothie.
  - Flax oil taken with a meal can actually increase the nutritional value of other foods

- . Research shows that adding flax oil to foods rich in sulfated amino acids, such as cultured dairy products (i.e., yogurt), vegetables of the cabbage family, and animal, seafood, and soy proteins helps the essential fatty acids become incorporated into cell membranes. Mixing flax oil with yogurt helps to emulsify the oil, improving its digestion and metabolism by the body.
- Flax oil works best in the body when it's taken along with antioxidants, such as vitamins E, carotene, and other nutrients, such as vitamin B6 and magnesium. While a tablespoon of flax oil a day might not keep the doctor away entirely, it's bound to help.

If flax oil not does appeal to your children, try giving them Go Fish omega-3 soft gels. They have an orange flavor that kids love.