

# Essential Fatty Acids

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The body can synthesize some of the fats it needs from the foods you eat. However, two essential fatty acids cannot be synthesized in the body and must be taken in the diet from plant foods. Their names—linoleic and linolenic acid—are not important. What *is* important is that these basic fats are used to build specialized fats called omega-3 and omega-6 fatty acids.<sup>1</sup>

Omega-3 and omega-6 fatty acids are important in the normal functioning of all tissues of the body. Deficiencies are responsible for a host of symptoms and disorders including abnormalities in the liver and kidney, changes in the blood, reduced growth rates, decreased immune function, and skin changes including dryness and scaliness. Adequate intake of the essential fatty acids results in numerous health benefits. Prevention of atherosclerosis, reduced incidence of heart disease and stroke, and relief from the symptoms associated with ulcerative colitis, menstrual pain, and joint pain have also been documented.<sup>2,3</sup>

While supplements and added oils are not typically necessary in the vegetarian diet, good sources of omega-3 fats should be included daily. Alpha-linolenic acid (ALA), a common omega-3 fatty acid, is found in many vegetables, beans, and fruits. More concentrated sources can be found in oils such as canola, flaxseed (linseed), soybean, walnut, and wheat germ. Corn, safflower, sunflower, and cottonseed oils are generally low in ALA. Omega-6 fatty acids, such as gamma-linolenic acid, can be found in more rare oils, including black currant, borage, evening primrose, and hemp oils.<sup>3</sup>

Fish oils have been popularized as an aid against everything from heart problems to arthritis. The bad news about fish oils is that omega-3s in fish oils are highly unstable molecules that tend to decompose and, in the process, unleash dangerous free radicals. Research has shown that omega-3s are found in a more stable form in vegetables, fruits, and beans.<sup>6,7</sup>

Whether you are interested in promoting cardiovascular health, ensuring the proper growth and development of your child, or relieving pain, a vegetarian diet rich in fruits, vegetables, and legumes can help you achieve adequate intake of the essential fatty acids. Adding flaxseed oil to your salad or grinding flax seeds for your breakfast cereal are simple ways to incorporate extra omega-3 fatty acids to your diet.

## References

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## Plant Foods Rich in ALA

- Green leafy vegetables (purslane, lettuce, broccoli, spinach, etc.)
- Legumes (navy, pinto, or lima beans, peas or split peas, etc.)
- Citrus Fruits

Adapted from: Barnard NB. *Foods That Fight Pain*. Harmony Books, New York, 1998.

## ALA Content of Natural Oils<sup>4,5</sup>

Flaxseed	53-62%
Linseed	53%
Canola	11%
Walnut	10%
Wheat germ	7%
Soybean	7%

## GLA Content of Natural Oils<sup>4,5</sup>

Borage oil	42%
Hemp oil	19%
Black currant oil	17-18%
Evening primrose oil	8-10%