



Fats: Give Your Body an Oil Change

By Dr. Ritamarie Loscalzo

Now is the time to start switching from butter, margarine, and heated oils or trans fats (oils that cause inflammation) to healthier fats, that contain Essential Fatty Acids (or EFAs for short), which actually help reduce inflammation.

There are **2 fats** considered "essential fatty acids", meaning that your body can't make them and you need to include them in your diet on a regular basis -- **linoleic acid (LA)** and **alpha-linoleic acid (LNA)**.



Imbalances and deficiencies of these fats can adversely affect your health.

Background Information:

Best Plant Sources of Essential Fatty Acids:

- flax seed
- chia seed
- hemp seed
- walnuts
- brown varieties of blue green algae
- purslane



Purchase, Use, and Storage

When using oil-rich seeds, it's important to **use the whole seeds, raw and unprocessed**. As the oil in these seeds is very vulnerable to spoiling, keep your seeds fresh in the **refrigerator or freezer** or use the **oil in the natural, non-processed state**.



Omega-3 fats should never be heated. This spares the valuable essential oils from exposure to excess heat and oxygen and thus their possible oxidation. Purchase any oils you buy in dark bottles, either refrigerated or nitrogen packed, with **expiration dates clearly indicated**. The expiration and the pressing dates on flax seed oil should be no longer than four months apart to ensure its freshness.

How to Add to Your Diet:

Flax seeds and chia seeds are both most easily absorbed by your body when they're **soaked and ground** before eating.

Taking these simple steps will ensure adequate digestion and maximum availability of fatty acids.



Both the seeds and the oils can be eaten in the form of **sauces and dressings**.

The Science of Essential Fatty Acids: Conversion

The conversion of the shorter chain omega-3 fatty acids found in nuts and seeds to the longer chain fatty acids -- (EPA and DHA) found in fish, to a lesser extent in purslane (a wild, edible green vegetable), and in brown varieties of blue green algae -- is very inefficient. Many nutrient cofactors are required for this conversion -- nutrients typically found to be deficient in the Standard American Diet such as Vitamin C, B3, B6, magnesium, and zinc.

It has been shown that this **conversion can be increased tenfold if coconut or coconut oil is consumed along with an omega-3 rich plant food** such as flax, hemp, chia or pumpkin seed.

Fish is high in the long chain fatty acids EPA and DHA. EPA and DHA can be synthesized by our bodies from LA in the presence of adequate B vitamins and minerals. Some researchers believe that this conversion is very inefficient. Others believe that the inefficiency is due to eating diets high in refined foods and deficient of essential nutrients; however, the conversion becomes more efficient as the necessary nutrients are replenished. I believe that this needs to be evaluated on a case by case basis.



If you choose to use fish or fish oils as a source of fatty acids, it is important to choose your source carefully. Be sure that the fish is cold water fish from deep in the ocean to reduce exposure to heavy metals and toxins. If you use fish oil, be sure it is from a reputable company that does third party testing for contamination by mercury, lead, PCBs and other contaminants.



The Science of Essential Fatty Acids: Balance

A huge problem with fat consumption, especially in the western world, is that there is **a much higher ratio of omega-6 fats consumed to omega-3** than is health promoting. Omega-6 fats are abundant in plant foods like sunflower seed, pumpkin seed, almonds, pecans, Brazil nuts, and oils made from these as well as soybean and corn.

As a result, most people consume far more omega-6 fats than omega-3. The ideal ratio is **3 parts or less omega-6 to 1 part or more omega-3** (minimum 3:1). Most Americans consume **20 or more times** omega-6 fats as compared to omega-3, leading to **an epidemic of inflammatory diseases**. In the advanced part of the fat module we'll go into more details about how inflammation comes to be and how you can optimize your body's ability to manage inflammation using dietary fats.

For now, **focus on rebalancing your fat intake.**

Action Plan

#1: Assess your Essential Fatty Acid (EFA) score.

Complete the [General Nutrient Balance Assessment](#).

This health assessment will examine your general nutritional needs, essential fatty acid needs, and potential levels of amino acids. Completion of Section 2 will indicate your EFA score.



#2: Learn how to choose the right fats in *Give Your Body an Oil Change*.

Study the information above to ensure you have an understanding of what EFAs are and why they're important.



#3: Choose an omega-3 rich food source every day.

Commit to **include your allotment of inflammation fighting omega-3 fat foods in your diet every day.** Be sure to choose at least one of the essential fatty acid rich foods daily.

- chia seeds
- flax seeds or flax seed oil
- hemp seeds or hemp seed oil
- walnuts
- sacha inchi seeds or oil
- brown varieties of blue green algae
- purslane
- deep ocean fish or fish oils (check sources)
- borage, evening primrose, black currant seed oil

#4: Eat an appropriate portion size of omega-3-rich fats.

Each of the following portions below would be a recommended daily serving. **Choose one** serving per day (or mix and match in appropriate quantities).

- 5-6 tablespoons of seeds
- 1-2 tablespoons of blue green algae
- 1/2 cup of purslane (edible, wild green)
- 1-2 tablespoons of organic, cold processed oil



#5: Track your omega-3 versus omega-6 balance.

Use the "[Omega-3 and Omega-6 Content of Common Foods](#)" chart to **track your omega-6 to omega-3 ratio on a regular basis.** There are several recipes included that are very omega-3 rich for your convenience.

#6: Start your day with a chia energy drink or chia porridge.

Enjoy chia seeds along with your green smoothie or green juice, or add chia seeds to your greens. Choose from chia-rich recipes provided in your program or make up your own.

