



What Makes a Fat “Essential”?

Your body is capable of producing many of the fats it uses. For example, it can convert certain fatty acids into other forms, and it can also store excess calories from fat, carbohydrate, or protein as body fat when you take in more than your body needs. Linoleic acid (LA) and alpha-linolenic acid (ALA), however, are exceptions because the body cannot synthesize them and they must be obtained from the diet.

Those two fatty acids sit at the base of two important fatty acid families. LA belongs to the omega-6 family, and ALA belongs to the omega-3 family. Both are structural components of cell membranes and serve as starting materials for compounds that regulate inflammation, blood clotting, blood vessel function, and aspects of immune and reproductive health. Their effects extend across multiple body systems.

LA (the Omega-6)

LA is widely distributed in the food supply. It is present in nuts, seeds, plant oils, grains, legumes, eggs, poultry, and many commonly eaten foods. Most adults meet their LA needs without special effort. Even people who avoid nuts and seeds typically obtain adequate LA from grains, legumes, eggs, poultry, and other everyday foods. True LA deficiency is rare outside of severe malnutrition or highly restrictive medical diets.

LA is a key structural component of cell membranes and contributes to skin integrity and barrier function. It also serves as the starting material for compounds involved in immune signaling and inflammatory responses. Like all omega-6 fats, its effects depend on context and balance within the overall diet.

ALA (the Omega-3)

ALA is the starting point for the omega-3 family. Your body uses it to make two other omega-3 fats, EPA and DHA. EPA helps regulate inflammation and supports cardiovascular health. DHA is a major structural fat in the brain and retina and plays an important role in cognitive function and vision.

Your body can convert some ALA into EPA and then into DHA, but it does not do this very efficiently. The amount converted is small and varies from person to person. That means relying on ALA alone does not always lead to high levels of EPA and DHA.

EPA and DHA are found primarily in fatty fish such as salmon, sardines, mackerel, anchovies, and herring. When you eat them directly, your body does not have to rely on that conversion step. This is why the American Heart Association recommends at least two servings of fatty fish per week for cardiovascular health.

If you do not eat fish, including ALA-rich foods regularly becomes more important. Flaxseeds, chia seeds, walnuts, hemp seeds, canola oil, and soy products are concentrated sources. Leafy greens contribute smaller amounts (but add up with those big daily salads!). Algae-based supplements are another option, providing DHA and sometimes EPA directly without depending on conversion.

Practical Considerations

Most Western dietary patterns are high in omega-6 fats and relatively low in omega-3 fats. When researchers refer to the omega-6 to omega-3 ratio, they are comparing total grams of omega-6 fats (primarily LA) with total grams of omega-3 fats, including ALA, EPA, and DHA. In Western diets, that ratio often falls around 10:1 or higher, mainly because omega-3 intake tends to be low. Because both fatty acid families rely on and compete for shared metabolic pathways, a pattern that is high in omega-6 and low in omega-3 can limit the production of omega-3-derived compounds that help regulate inflammation and cardiovascular function.

Omega-6-derived compounds help initiate inflammatory responses when needed, while omega-3-derived compounds tend to help bring those responses back down. Both roles are important. The balance between the two families helps determine how effectively inflammation is regulated over time.

Some researchers suggest that lower ratios, closer to 4:1 or below, are associated with more favorable inflammatory and cardiovascular profiles. However, major guidelines focus less on achieving a specific ratio and more on ensuring adequate omega-3 intake. The issue is not that LA is harmful. The issue is that omega-3 intake often does not rise alongside it. Increasing ALA, EPA, and DHA intake helps shift the overall pattern toward better balance.

Here are some practical ways to shift the balance in your favor:

- cook with canola oil instead of butter
- add ground flax or chia to oatmeal or yogurt
- include walnuts in salads
- incorporate soy foods such as tofu or edamame
- replace red meat and poultry with fatty fish twice per week

It is worth noting that some commonly promoted fats are not meaningful sources of essential fatty acids. Butter, beef tallow, lard, coconut oil, and palm oil provide saturated fat but very little LA or ALA. And while beneficial, olive oil is not a meaningful source of EFAs. It is rich in oleic acid, a mono-unsaturated fat, along with protective antioxidants.

Walnut, Flax, and Edamame Pesto Gnocchi



This dish brings together several concentrated sources of ALA in one simple, weeknight-friendly meal. Walnuts, flaxseed, and edamame provide plant-based omega-3 fats, and canola oil adds a small additional amount without changing flavor.

Ingredients (serves 4):

- 1½ pounds shelf-stable or refrigerated potato gnocchi
- 1 cup shelled edamame (fresh or frozen, thawed)
- 1 cup fresh basil
- ½ cup walnuts
- 1 tablespoon ground flaxseed
- 1 small clove garlic
- 2 tablespoons canola oil
- 2 tablespoons olive oil
- ¼ cup grated Parmesan (optional)
- Salt and black pepper to taste
- Cherry tomatoes or sautéed spinach for serving (optional)

Instructions:

1. Bring a large pot of salted water to a boil. Add the gnocchi and cook according to package directions, usually 2–3 minutes, until they float. In the final minute of cooking, add the edamame to warm through. Drain, reserving a few tablespoons of cooking water.
2. In a food processor, combine basil, walnuts, ground flaxseed, garlic, canola oil, olive oil, Parmesan if using, salt, and pepper. Blend until smooth, adding a splash of cooking water as needed to loosen.
3. Toss the pesto with the warm gnocchi and edamame. Top with tomatoes or sautéed greens if desired and serve immediately.