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Why Chugging Olive Oil Is a Bad Idea

Analysis by Dr. Joseph Mercola | June 19, 2026

STORY AT-A-GLANCE

- A TikTok trend suggests drinking a shot of olive oil each day is good for you, but the reality is that it could harm your health
- I recommend limiting olive oil intake to 1 teaspoon a day due to its linoleic acid (LA) content, or better yet, avoid it completely
- Typically, olive oil contains anywhere from 3% to 21% linoleic acid, but it's commonly adulterated with seed and vegetable oils, which will drive its LA content even higher
- Consuming too much LA is associated with cardiovascular disease, cancer, Alzheimer's, and other chronic diseases
- To find high-quality, pure olive oil, only purchase trusted and tested brands; then, put the oil in your refrigerator, as the LA will remain liquid. Simply pour that oil in your trash and your olive oil will be healthier, since you reduced its LA content

Have you seen the latest TikTok trend urging people to start their day off with a shot of extra virgin olive oil? This is yet another social media fad you're better off avoiding. While olive oil is widely regarded as a health food — the TikTok trend suggests drinking olive oil can boost metabolism and improve gut and skin health,[1] for instance — it contains linoleic acid (LA).

There's been a series of mainstream articles touting the Mediterranean diet, specifically praising the health benefits of olive oil. However, contrasting views exist, particularly concerning its link to obesity. Historical skepticism, such as that from Plato, who

deemed olive oil harmful, contrasts sharply with its modern accolades.

Intriguingly, areas like Greece, Spain, and Southern Italy, known for high olive oil consumption, also report some of the highest obesity rates in Europe. This has sparked debates about olive oil's role in health, given its nutritional profile predominantly featuring oleic acid, a monounsaturated fat known for health benefits.

While pure, unadulterated olive oil contains less linoleic acid than other vegetable and seed oils, like safflower, grape seed, corn, and soybean oils, it's often cut with cheaper oils, raising its LA content. This is problematic, as consuming too much LA, as most Americans do, increases your risk of multiple chronic diseases.

Even under the best circumstances, meaning you've found a high-quality, unadulterated brand of organic olive oil, I recommend limiting olive oil intake to 1 tablespoon a day due to its LA content. Assuming a typical shot glass holds 1.5 ounces, a daily shot of olive oil would contribute about 3 tablespoons of olive oil to your diet — three times my top recommended limit.

Oleic Acid — Major Problem with Olive Oil

I have previously interviewed **Brad Marshall on reductive stress** and he has done a magnificent job in highlighting the problems with oleic acid and how it increases the risk of obesity and metabolic dysfunction. Further exploration into the relationship between olive oil and obesity reveals complex dynamics. Despite high local olive oil consumption, studies suggest that its impact on body mass index (BMI) is negligible.

- **This challenges the notion that olive oil directly contributes to obesity —** However, this narrative took a defensive turn when researchers, rather controversially, attributed obesity rates in Mediterranean regions to lifestyle factors like physical inactivity rather than dietary habits. This perspective was tested in experiments where dietary olive oil was shown to induce insulin resistance in mice, suggesting a potential metabolic concern.

- **Animal model studies reveal oleic acid's isolated effects —** In-depth studies have used animal models to isolate the effects of oleic acid, aiming to control variables present in olive oil like polyphenols and saturated fats.

  Results indicated that pure oleic acid led to even greater insulin resistance in mice, highlighting concerns over its metabolic impacts when isolated from other components typically found in olive oil. This points to the complexity of olive oil's health impacts, suggesting that beneficial outcomes might be more attributable to its polyphenol content rather than the oil itself.

- **Monounsaturated fats and fat metabolism mechanisms —** The discourse expanded with studies focusing on how monounsaturated fats influence fat metabolism and storage, particularly through mechanisms involving the desaturase enzymes, which convert saturated fats into monounsaturated fats. These enzymes, upregulated by dietary monounsaturated fats, play a significant role in lipogenesis, the process of converting carbohydrates into fatty acids.

- **The complexity of olive oil's role in metabolic health —** This biological pathway is crucial as it not only highlights how dietary fats influence lipid profiles but also underscores the nuanced interplay between different types of dietary fats and metabolic health. While olive oil is celebrated for its health benefits, primarily due to its rich monounsaturated fat content and polyphenols, the broader implications of its consumption are complex.

The potential for olive oil to influence metabolic pathways, particularly in how it may modulate fat synthesis and storage, calls for a balanced perspective on its consumption within a dietary context. These findings invite a more cautious approach to dietary recommendations, suggesting that the integration of olive oil into diets should consider individual metabolic responses and broader dietary patterns.

Why Is Linoleic Acid Harmful?

My peer-reviewed paper on the hazards of **linoleic acid**, an omega-6 polyunsaturated fat (PUFA), is published in the high-impact nutrition journal Nutrients and can be **downloaded for free**.[2]

- **Excess linoleic acid produces harmful oxidized metabolites —** While LA is an essential fatty acid, when too much is consumed it becomes a precursor to oxidized LA metabolites (OXLAMs), such as 4-Hydroxynonenal (HNE), 9- and 13-hydroxy-octadecadienoic acid (9- and 13-HODE), and 9- and 13-oxo-octadecadienoic acid (9- and 13-HODE), which are associated with cardiovascular disease, cancer, Alzheimer's and other chronic diseases.

- **High linoleic acid intake impairs mitochondria and damages the liver —** Excessive levels of LA may also lead to impairments in mitochondrial function, while OXLAMs are toxic to the liver and associated with inflammation, fibrosis, and fatty liver disease in humans.[3]

  As researchers further noted in the journal Nutrients, "In addition, a few studies suggested that omega-6 PUFA is related to chronic inflammatory diseases such as obesity, nonalcoholic fatty liver disease and cardiovascular disease."[4]

- **Linoleic acid contributes to oxidation, hypertension, and cancer —** Consuming too much linoleic acid is also associated with high blood pressure and cancer, while its autoxidative stability — meaning how resistant it is to oxidation — is 10 times lower than oleic acid[5] — the main fatty acid in olive oil. This means oils high in linoleic acid are more prone to going rancid quickly.

Further, because the half-life of LA is about two years, the damage it causes is persistent and may not resolve for years after you've dramatically cut back on your LA intake.

How Much Linoleic Acid Is in Olive Oil?

Olive oil consumption has grown considerably in recent decades, nearly doubling from 1990-1991 to 2020-2021.[6] Oleic acid is the predominant fatty acid in olive oil, making up 55% to 83% of its total fatty acid content.[7] This monounsaturated fatty acid is considered beneficial for heart health, with research suggesting higher olive oil intake is associated with a:[8]

- 29% lower risk of neurodegenerative disease mortality
- 19% lower risk of cardiovascular disease mortality
- 18% lower risk of respiratory disease mortality
- 17% lower risk of cancer mortality

A noteworthy point, however, is that even those with the highest olive oil consumption weren't consuming that much, as high intake was defined as greater than 0.5 tablespoons per day. According to the study, "The mean consumption of total olive oil in the highest category (>0.5 tablespoon/d) was about 9 g/d [grams per day] at baseline,"[9] which is about 0.69 tablespoons.

- **Moderation and oil purity are key for health benefits —** So, assuming the olive oil is pure and organic, consuming a teaspoon or less may be beneficial, but if you regularly eat more than that — or use a brand that's cut with unhealthy seed oils — it could harm your health. Typically, olive oil contains anywhere from 3% to 21% linoleic acid, which is influenced by the specific variety of plant (cultivar) being grown.[10]
- **Genetics and growing conditions affect fatty acid composition —** Additionally, environmental conditions where the plant is grown, such as soil type, climate, and weather patterns, along with how the plant is cultivated and managed, also affect the fatty acid composition.

In short, both the genetics of the plant and the conditions under which it is grown and cared for play significant roles in determining the types and amounts of fatty acids it will contain. However, in the case of olive oil, adulteration is one of the key factors driving up LA content.

As for other oils, the table below provides a fairly comprehensive list of the most commonly consumed oils and their approximate LA content, helping you see how they stack up for your health.[11,12,13]

COOKING OILS	% LINOLEIC ACID (LA) AVERAGE VALUE (RANGE IN PARENTHESES)
SAFFLOWER OIL	70%
GRAPE SEED OIL	70%
SUNFLOWER OIL	68%
CORN OIL	54%
COTTONSEED OIL	52%
SOYBEAN OIL	51%
RICE BRAN OIL	33%
PEANUT OIL	32%
CANOLA OIL	19%
OLIVE OIL	10% (3% - 27%)
AVOCADO OIL	10%
LARD	10%
PALM OIL	10%
TALLOW (CAFO)	3%
GHEE/BUTTER (CAFO)	2%
COCONUT OIL	2%
TALLOW (GRASS FED)	1%
BUTTER (GRASS FED)	1%

Your Olive Oil Is Likely Tainted with Inferior Oils

It's very difficult to find high-quality, fresh, unadulterated olive oil. Tests show that 60% to 90% of olive oil sold in U.S. grocery stores and used in restaurants is adulterated with cheap, oxidized, omega-6 seed oils, such as sunflower oil or peanut oil, or nonhuman-grade olive oils, which are harmful to health in a number of ways.[14]

- **Pomace oil, which comes from the residue of olive oil fruits, is another common adulterant[15] —** It contains some of the flavors and properties of olive oil but is of significantly lower quality and is extracted using chemical solvents, typically hexane.

  Olive pomace oil is often mixed with olive oils like extra virgin or virgin olive oil to increase volume and reduce costs, without disclosing this mixture on the label. This practice is considered fraudulent and illegal in many countries.

- **Lampante oil is also sometimes used to adulterate higher-quality olive oils —** "Lampante" means lamp in Italian — a name used because lampante oil was historically used to fuel oil lamps. It's the lowest grade of virgin olive oils, derived from olives that are of poor quality, overripe or damaged. It is not fit for human consumption in its raw form due to its high acidity and potential defects in taste and smell.

- **Refining processes make lampante oil consumable but nutritionally poor —** To make it suitable for consumption, lampante oil needs to be refined to remove impurities, which also removes most of its flavor, color and aroma. After refining, it is often blended with small amounts of higher-quality virgin or extra virgin olive oil to improve its taste and odor.

  One probe in December 2023, organized by Spanish and Italian law enforcement, led to the seizure of more than 260,000 liters of olive oil diluted with lampante oil.[16]

That same month, Brazilian officials destroyed 16,380 liters of olive oil that were deemed unfit for consumption. Most often, the fraud involves soybean oil mixed with artificial substances being passed off as olive oil.[17]

Can You Tell if Your Olive Oil Is Fake?

Even the gold-standard "extra virgin" olive oil is often diluted with other less expensive oils, including hazelnut, soybean, corn, sunflower, palm, sesame, grape seed, and/or walnut. These added oils will not be listed on the label, and most people will not be able to discern that their olive oil is not 100% pure.

Chances are you've been eating poor-quality olive oil so long — or you've never tasted pure, high-quality olive oil to begin with — you don't even realize there's something wrong with it. Your best bet to find high-quality, pure olive oil is to only purchase trusted and tested brands.

Then, put the oil in your refrigerator. The linoleic acid will remain liquid. Simply pour that oil in your trash and your olive oil will be healthier, since you reduced its LA content. Meanwhile, here are four tell-tale signs that your olive oil may be poor quality:

1. **Rancidity —** If it smells like crayons or putty, tastes like rancid nuts and/or has a greasy mouthfeel, your oil is rancid and should not be used.

2. **Fusty flavor —** "Fusty" oil occurs when olives sit too long before they're milled, leading to fermentation in the absence of oxygen. Fusty flavors are incredibly common in olive oil, so many simply think it's normal. However, your olive oil should not have a fermented smell to it, reminiscent of sweaty socks or swampy vegetation.

   To help you discern this particular flavor, look through a batch of Kalamata olives and find one that is brown and mushy, rather than purple or maroon-black and firm. The flavor of the brown, mushy one is the flavor of fusty.

3. **Moldy flavor —** If your olive oil tastes dusty or musty, it's probably because it was made from moldy olives, another occasional olive oil defect.

4. **Wine or vinegar flavor —** If your olive oil tastes like it has undertones of wine and vinegar (or even nail polish), it's probably because the olives underwent fermentation with oxygen, leading to this sharp, undesirable flavor.

How to Determine How Much LA You're Consuming

Drinking shots of olive oil is only one way to make your LA intake skyrocket. It's also important to avoid nearly all processed foods, restaurant and fast foods, as virtually all of them contain toxic seed oils. The easiest way to do this is to prepare the majority of your food at home so you know what you are eating.

Because animals are fed grains that are high in linoleic acid,[18] it's also hidden in other "healthy" foods like chicken and pork. So, eating a lot of chicken and pork adds to your seed oil consumption and further skews your omega-6 to omega-3 ratio. Remember, omega-6 fats need to be balanced with omega-3 fats in order to not be harmful, but this isn't the case for most Americans, who typically consume far more omega-6 than omega-3.

The key to improving your ratio, however, is not necessarily to increase omega-3 but decrease omega-6. As mentioned, even too much organic, biodynamic olive oil can shift your ratio in the wrong direction, so be sure you use the trick I described above to lower the LA content of the olive oil you're consuming — and limit your olive oil intake to about 1 teaspoon per day or less.

To help you measure your intake, I recommend you download my upcoming Mercola Health Coach app, which contains the Seed Oil Sleuth. This feature helps calculate the LA in your food to a tenth of a gram.

Frequently Asked Questions (FAQs) About Olive Oil Dangers

Q: Why is drinking olive oil shots considered harmful?

A: While social media trends claim that drinking a shot of olive oil daily boosts metabolism and improves gut and skin health, this practice can be harmful due to olive oil's linoleic acid (LA) content. Consuming too much LA increases the risk of chronic diseases such as cardiovascular disease, cancer, and Alzheimer's. Even high-quality olive oil should be limited to no more than one tablespoon per day, and ideally just one teaspoon.

Q: What are the main health risks associated with linoleic acid (LA)?

A: Linoleic acid, an omega-6 polyunsaturated fat, is essential in small amounts but dangerous in excess. Too much LA leads to oxidized linoleic acid metabolites (OXLAMs) that contribute to inflammation, mitochondrial dysfunction, liver damage, and diseases such as obesity, fatty liver, hypertension, and cancer. Because LA has a two-year half-life, its damaging effects persist long after intake is reduced.

Q: How can you tell if your olive oil is pure or adulterated?

A: It's difficult to find authentic olive oil, as 60% to 90% of products in U.S. stores are adulterated with cheap seed oils like sunflower or soybean oil. Indicators of poor-quality olive oil include rancid, fusty, moldy, or wine/vinegar-like odors or flavors. The best way to test purity is to refrigerate the oil — if some stays liquid, that portion contains LA, which can be discarded to reduce its harmful content.

Q: Isn't olive oil a key part of the Mediterranean diet and considered healthy?

A: While olive oil is central to the Mediterranean diet and linked to reduced mortality from heart and neurodegenerative diseases, these benefits appear when consumed in moderation (around half a tablespoon daily) and as part of an overall balanced diet. High intake, especially from adulterated sources, negates its benefits. Moreover, some evidence suggests oleic acid, the main fat in olive oil, may contribute to metabolic dysfunction if consumed excessively.

Q: How can you reduce your daily linoleic acid intake?

A: To keep LA consumption below 5 grams per day, avoid:

- Processed and restaurant foods cooked with seed oils
- Poultry and pork raised on grain-based diets high in LA
- Overuse of even organic olive oil

Use an app like my upcoming Mercola Health Coach to monitor your omega-6 intake and aim for a balanced omega-6 to omega-3 ratio. The goal isn't to increase omega-3s but to minimize omega-6 fats, particularly from oils.

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