Your Global Fats and Oils Connection

Seed Oils: Understanding the Science

Seed oils are a vital component of the American food system, offering a nutritious, affordable, and versatile source of dietary fats. Their unique fatty acid profiles make them well-suited for a wide range of culinary uses, from home cooking to large-scale food production. This fact sheet provides a science-based overview[†] of the role seed oils play in a safe, healthy diet.

- Seed oils provide essential fatty acids that are important for health and for normal function of the body (1,2).
- Polyunsaturated fatty acids from seed oils lower "bad" (LDL) cholesterol in the blood (3,4).
- Polyunsaturated fatty acids from seed oils decrease the likelihood of a person getting cardiovascular disease (5-11, 35) and diabetes (12-36).
- Polyunsaturated fatty acids from seed oils have not been shown to promote inflammation in human clinical trials (37,38).
- Polyunsaturated fatty acids from seed oils improve body composition and metabolic health (39).
- The utility of the dietary omega-6 to omega-3 ratio has been debated and there is no consensus on its usefulness (40-41).
- All oils spoil when they become rancid or are thermally abused (e.g., heated to temperatures exceeding its smoke point) (42-50).
- Seed oils contain high amounts of tocopherols that provide natural protection against spoilage by delaying the onset of rancidity (42,45,49,50).
- Oils should be carefully heated to prevent spoilage by thermal degradation (42,49,51).
- Spoiled oils can contain harmful components so they should be discarded and not consumed as with any spoiled food (52-60).

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