



This can be confusing, so let me clarify the distinction between **retinol** and **retinyl palmitate**, as well as their sources—both natural and synthetic.

Vitamin A Palmitate



Retinol vs. Retinyl Palmitate: Natural vs. Synthetic?

1. Retinol (Natural Form)

- **Source:** Naturally occurring in animal-based foods, especially **fish liver oil, egg yolks, butter, and dairy**.
- **Biological Role:** Retinol is the **directly active** form of vitamin A in the body, readily converted into retinal and retinoic acid for physiological functions.
- **Stability:** Free retinol is **highly unstable** and prone to oxidation, making it difficult to store and formulate in supplements or skincare products.

2. Retinyl Palmitate (Esterified Form)

- **Source:** Can be **naturally derived or synthetically produced**.

- **Natural Retinyl Palmitate:** Found in **fish liver oils and animal fats**. In food sources, some vitamin A exists as retinyl esters like retinyl palmitate.
- **Synthetic Retinyl Palmitate:** Often used in **fortified foods, supplements, and skincare** due to its stability. It is lab-created by combining **retinol and palmitic acid** (a fatty acid), mimicking the way vitamin A is stored in animal tissues.
- **Function:** A storage form of vitamin A in the body, it must be **converted back to retinol** before becoming biologically active.

Is Retinyl Palmitate Always Synthetic?

No, **retinyl palmitate is not inherently synthetic**—it **exists in natural sources like fish liver oil**. However, the **retinyl palmitate used in most commercial supplements and fortified foods is synthetic** because it is cheaper to produce and more stable than extracting it from natural sources.

Key Takeaway

- **Retinol** is the active, natural form of vitamin A found in fish liver oil.
- **Retinyl palmitate** is an esterified storage form that occurs **naturally in animal tissues** but can also be **synthetically produced**.
- **Most retinyl palmitate in supplements is synthetic**, but it functions the same way in the body as the natural form.
- **Be sure when supplementing** beyond what is found in your multivitamin with retinol/retinyl palmitate **FROM FISH LIVER OIL**, such as: [Bluebonnet Vitamin A from Fish Liver Oil 3 mg \(10,000 IU\) - #100 Softgels - Wondrous Roots](#)