



EXTRA VIRGIN OLIVE OIL – A CULINARY NUTRITION CASE STUDY

CULINARY NUTRITION is an important and emerging field that combines the passion for nutrition with cooking and preparing delicious food.¹



We know that food is more than just nutrients. Sustainable dietary patterns such as the Mediterranean diet highlight the importance of enjoying food in the company of family and friends and combining the senses such as taste and aroma.

Culinary nutrition has been described as the **practicality needed to make a difference to the health of the population.**¹



EVOO: A CULINARY NUTRITION STAND-OUT

A unique food, EVOO is simply the **NATURAL JUICE OF THE OLIVE.**



The natural **bioactive plant compounds** from the fruit contribute to EVOO's aroma, versatility and enjoyment.

HEALTH

EVOO contains the **highest amount** and variety of bioactive plant compounds of all mainstream cooking oils.^{2,3}

These include biophenols with **powerful antioxidant** activity, phytosterols, squalene and Vitamin E.⁴



These compounds are key to EVOO's health attributes and the **large body of evidence** to support this.^{4,5}

EVOO is the main culinary fat in the Mediterranean diet and central to the health and taste attributes of this healthy eating pattern.⁶

TASTE

The antioxidants in EVOO are, to a great extent, responsible for its **flavour.**⁷

EVOO is a **flavor enhancer and preserver**, and a good quality EVOO lifts the flavour of a dish.²

Different olive fruit varieties will give **different intensity of flavour** and levels of antioxidants from a light fruity tasting EVOO through to a robust peppery oil.



The **more antioxidants** an EVOO contains, the more robust the flavour.

Hydroxytyrosol, oleuropein and ligsstroside derivatives are some of the antioxidants in EVOO that contribute to **bitter and pungent flavours.**³

Taste is one of two sensory parameters that is used to technically classify an olive oil as EVOO.

OLEOCANTHAL: A RISING STAR



Oleocanthal is an antioxidant unique to EVOO.

Discovered in 2005, Oleocanthal is anti-inflammatory and has a similar mode of action to Non-Steroidal Anti-Inflammatory Drugs.^{8,9}

Both compounds produce a site-specific irritation, similar to a peppery flavour, in the oropharangeal region. This is a unique attribute that contributed to Oleocanthals discovery.^{8,9}

AROMA



Volatile compounds in olive oil belong to several chemical families such as acids, alcohols, esters and carbonyls, and they are mainly produced by oxidation of fatty acids. They are natural compounds found in the process of extracting EVOO and they are **mostly responsible for its aroma.**⁷



Aroma is the second sensory parameter used to technically classify an olive oil as EVOO.

A good quality EVOO will **smell fresh** and remind you of naturally occurring fresh aromas.

There are countless ways to formally **describe the aromas** of EVOO. Some of the most common references that we find are fresh cut grass, passionfruit, citrus, green tomato, apple, banana, mint, floral, fig, cinnamon and pepper.¹⁰



A **rancid or fermented EVOO** will not smell fresh and will remind you of old, artificial or fermented products such as plastic, crayon, soap, cheese, salami or off milk.

MOUTH FEEL AND APPEARANCE

A high quality EVOO will taste **"clean"** in the mouth and will not leave a fatty residue.



The colour of olive oils ranges from light yellow to a more or less deep green, depending on the content of liposoluble pigments, which is determined mostly by the variety, the moment of picking and the processing techniques.

VERSATILITY

Cobram Estate EVOO provides flavour options from **light through to robust** to cater for personal taste and cooking needs.

EVOO can be used for all cooking occasions including baking, desserts, sauces and marinades, pan-frying, deep-frying, salad dressings, drizzling and dipping.

EVOO is gluten free, low FODMAP, plant-based, vegan and vegetarian and fits many **different eating patterns and preferences.**



CULINARY NUTRITION PRINCIPLES AND EVOO

On average, 25–50 mL of EVOO daily is associated with health benefits.⁵

This is equivalent to **at least 2–3 tablespoons daily.**



FRESHNESS AND QUALITY



Olive Oil (including Extra Light and Pure) are **chemically refined oils** that are different to EVOO. Refining an oil strips the oil of the antioxidants that are important to EVOO's health, sensory attributes, freshness and versatility.^{3,12}

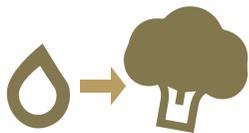


High quality EVOO leads to the **freshest oil** with maximum biophenols and flavour.

COOKING



The **antioxidants** in EVOO and its fatty acid profile are key reason EVOO is suitable for high heat cooking, protecting the oil from breaking down when heated and **transferring** into the resultant cooked food for added health benefits.¹³⁻¹⁵



Fat soluble vitamins, and food components such as **glucosinolates** (found in broccoli, cauliflower and kale) and **carotenoids** (found in carrots) are **better absorbed** by the body when cooked in EVOO.^{15,16}

KEY PRACTICE POINTS

High quality EVOO is a **great example** of culinary nutrition in practice.



The unique bioactive compounds in EVOO are key to the oils flavour, aroma, health and versatility attributes.



Add 1 tablespoon per cup of vegetables and encourage people to include EVOO at each meal to assist meet recommended volumes.



Encourage people to consume at least **2–3 tablespoons of EVOO** per day by combining it with other foods such as vegetables and protein when cooking, salads and legumes.

EVOO FOOD PAIRING HACKS



EVOO is an incredibly **versatile oil** and can pair with almost any food.

Adding EVOO when cooking **tomatoes** increases the absorption of lycopene, the main carotenoid found in tomatoes.¹⁷



EVOO facilitates **vegetable and legume consumption** in the Mediterranean diet.⁶



EVOO pairs well with salty, starchy foods such as **breads, pasta and potato, improving their palatability.** Dip crusty bread in a robust EVOO and salt or swap butter for EVOO on toast.



EVOO combines well with sweet and sour flavours. It can mellow and balance the acidity of citrus fruit. Drizzle Light flavoured EVOO over a slice of **peeled orange** and sprinkling with cinnamon sugar. The mouthfeel is closer to a pastry and turns a simple piece of fruit into a healthy dessert.



Robust EVOO paired with **dark chocolate** tones down the bitterness of the chocolate. The alkaloids in cacao are trapped by EVOO and blend well with Hydroxytyrosol and Secoiridoids in EVOO to produce a completely different mouthfeel closer to milk chocolate.



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