

Extra virgin olive oil

A treasure to preserve

Practical advice for selection and storage by the **National Consumers Union**



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"A treasure to preserve". This is the title of the Guide on the proper conservation of extra virgin olive oil, which ASSITOL - Italian Association of the edible Oil Industry - and NCU - National Consumers Union - presented to help consumers to safeguard the qualities of this product by following some basic rules.

Extra virgin olive oil is the Italians' most favored condiment, although they barely know about it. Indeed, this extraordinary nutritional and organoleptic treasure can quickly lose its qualities and characteristics if not properly preserved. Extra virgin olive oil is part of the Italian tradition and it is recognized as an excellence. Nevertheless consumers are not always able to orient themselves in the market and to use extra virgin olive oil properly.

The vademecum describes the characteristics of extra virgin olive oil, the "noblest" representative of the olive oils' family, and it highlights its nutritional and health characteristics. The preservation of the qualities of extra virgin olive oil, from farm to fork, is essential to fully enjoy this "health juice". These practical advices cover three different typical "locations" where olive oils can be found: at home, at the restaurant, in the stores and supermarkets.

Enjoy the reading!



Assitol-NCU conference. Rome, December 17, 2018

From the left:

Andrea Carrassi, Secretary General of Assitol

Anna Cane, President of the Assitol Olive Oil Group

Massimiliano Dona, President of the National Consumers Union

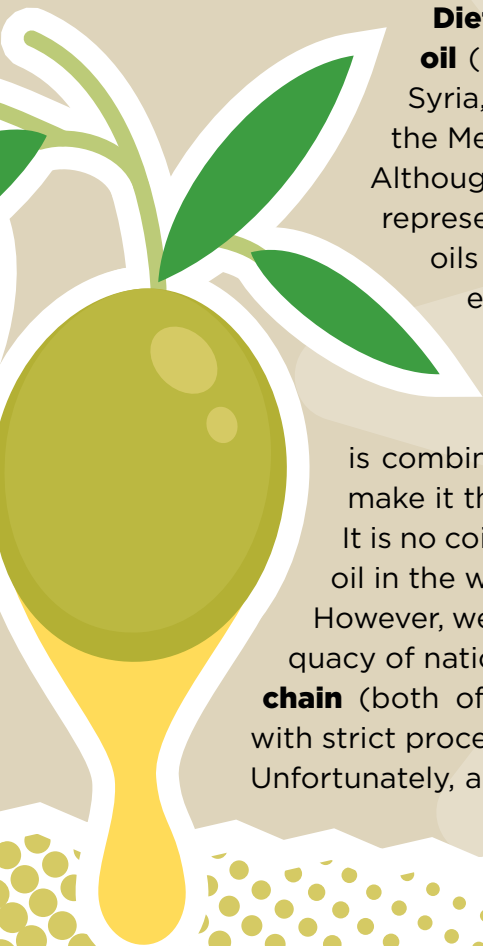
Why is it so important to store extra virgin olive oil properly?

Many of the benefits derived from the **Mediterranean Diet** must be attributed to the use of **extra virgin olive oil** (EVOO). For millennia, following importation from Syria, the cultivation of olive trees has been confined to the Mediterranean basin, particularly to Italy.

Although, in the global scenario, olive oil production represents only around 3% compared to other vegetable oils (such as soybean oil, palm oil and rapeseed oil), extra virgin olive oil offers definite, specific health benefits, that have led the USA Food and Drug Administration to classify it as a “medicine”.

The medical effectiveness of this “green gold” is combined with its excellent organoleptic qualities which make it the main condiment of the Italian culinary tradition. It is no coincidence that Italy is the largest consumer of olive oil in the world.

However, we cannot ignore the sore point of the current inadequacy of national EVOO production, although the entire **supply chain** (both of domestic and imported product) must comply with strict procedures, guaranteeing high **safety standards**. Unfortunately, a poor management of the product in the distribu-



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tion phase or in the final consumption phase can jeopardize the excellent qualities of EVOO.

We know that the **precious constituents** are very sensitive to unfavourable environmental conditions, which can accelerate deterioration or significantly worsen the organoleptic quality of EVOO – possibly leading to the product becoming rancid.

Therefore it is essential to preserve it in the most appropriate way to avoid the loss of its health and nutritional characteristics: hence, this guide is addressed to consumers, who can find useful information and details to better enjoy the many benefits deriving from **informed consumption of this product**.

When can an oil be defined as "extra virgin olive oil"?

An extra virgin **olive oil is olive oil obtained directly through extraction from olives exclusively via thermally controlled mechanical processes**. It must be free of organoleptic defects and with an acidity no higher than 0.8%

Essential on the tables of Italian consumers, extra virgin olive oil is the main condiment of the Mediterranean diet. Therefore, **its proper storage is a fundamental step in maintaining its incomparable flavour**, maintaining its nutritional and health characteristics until it reaches our tables.



Which other oils come from olives?

Besides extra virgin olive oil, there are also other oils that come from olives: virgin olive oil, olive oil and olive-pomace oil. They are all edible and contain the same percentage of unsaturated fats, but with a **different level of acidity** and with different organoleptic characteristics. For good reason, extra virgin olive oil is considered the most "noble" of the vegetable oils.

What does the level of acidity mean?

The level of acidity is the basic parameter to differentiate olive oils and it is calculated as the percentage of free fatty acids expressed as oleic acid in 100g of olive oil. Although impossible to recognize simply by tasting, it represents a **quality index** that expresses, alongside other analytical parameters, the good quality of the fruit and compliance with good agricultural and processing practices. In any case, it should not be confused with the positive characteristics of the product, such as the bitter taste, spicy taste and fruity taste.

Doctors and researchers have elected extra virgin olive oil as the ultimate **healthy condiment**, thanks to its nutritional value. This product has a high percentage of mono-unsaturated fatty acids and, in particular, oleic acid which is considered the "**good fat**", essential for many of our biological processes. It also contains a number of **substances useful for our health**, such as beta-carotene (provitamin A), tocopherols (vitamin E), polyphenols and squalene. Moreover, it helps the **absorption of essential nutrients**, such as fat-soluble vitamins (A, E, D, K) which need a fat - the olive oil - to be assimilated by our body.

Extra virgin olive oil: a healthy juice!

Why is extra virgin olive oil a healthy product?

The main benefits of olive oil concern the heart and the whole cardiovascular system. Thanks to the action of its substances, such as mono-unsaturated fatty acids and polyphenols, intake of extra virgin olive oil balances the level of LdL cholesterol, also known as "bad cholesterol", which is the cause of the most significant cardiovascular diseases. It is also a source of **powerful anti-oxidants**, such as phenolic compounds (polyphenols): together with Vitamin E, **they fight cellular ageing** and oxidative processes which cause numerous pathologies. Furthermore, it has been demonstrated that extra virgin olive oil's polyphenols play an important role in limiting the increase in post-prandial glycaemia, crucial in **diabetic subjects**. Although its anti-tumour capability is still under study, a lot of research has recognized the overall importance of the Mediterranean Diet in the prevention of certain types of cancers with particular regard to extra virgin olive oil. Recent Italian research has found that the **anti-inflammatory capabilities** of extra virgin olive oil polyphenols can act as an important tool for the prevention of bowel cancer.

Is oil fattening?

Scientific research has shown that a single food cannot by itself cause weight gain. Through several studies, extra virgin olive oil, as part of a varied and balanced diet, has been found to help **fight obesity**. In addition, according to a joint study by the University of Munich and Vienna, its unique aroma plays a "satiating" role, which can lead to eating less.

How to store extra virgin olive oil at home ?



Far from light

Strong lighting affects the quality of extra virgin olive oil. Therefore, its exposure to direct sunlight or any type of artificial lighting must be avoided. The best choice is to opt for an olive oil contained in a dark bottle, which better protects the product.

Far from heat

Never leave extra virgin olive oil near **stoves, radiators** or **under the sun**. The high temperature irreversibly damages the product.

Far from impregnating odours

Like any fat, extra virgin olive oil acts as a **sponge for volatile substances**. It is therefore recommended to keep it away from paint cans, scented detergents, and rooms with mould or full of smoke.

Neither too hot nor too cold

Always avoid **sudden changes in temperature**, which adversely affect the quality of the product. If stocking up on extra virgin olive oil and storing it for a long time, for example in the cellar, it is better having a cool temperature between 16°C and 20°C.

Avoid draughts

It is always good **closing the cap carefully** after any use, in order to avoid the risk of oxidation, which damages extra virgin olive oil over time.

Does the oil have an expiry date ?

Actually, it is not correct to talk about an “expiry date”: there is a good reason why olive oil has always been used to preserve food-stuffs. It is more correct to speak of a **“best before date”**, i.e. the period of time within which the extraordinary nutritional qualities of the extra virgin olive oil and its aromas are best enjoyed. The ideal period for the consumption of an extra virgin olive oil lasts 12-18 months (depending on the cultivar) and the olive oil’s labelling must refer to this duration. According to the International Olive Council, this period should not exceed 24 months.

Is it better to freeze the olive oil for better storage ?

No, it is not. On the contrary, it is always best to avoid extreme temperatures, preventing subsequent **precipitation of polyphenols** which can compromise the extra virgin olive oil’s quality and taste.

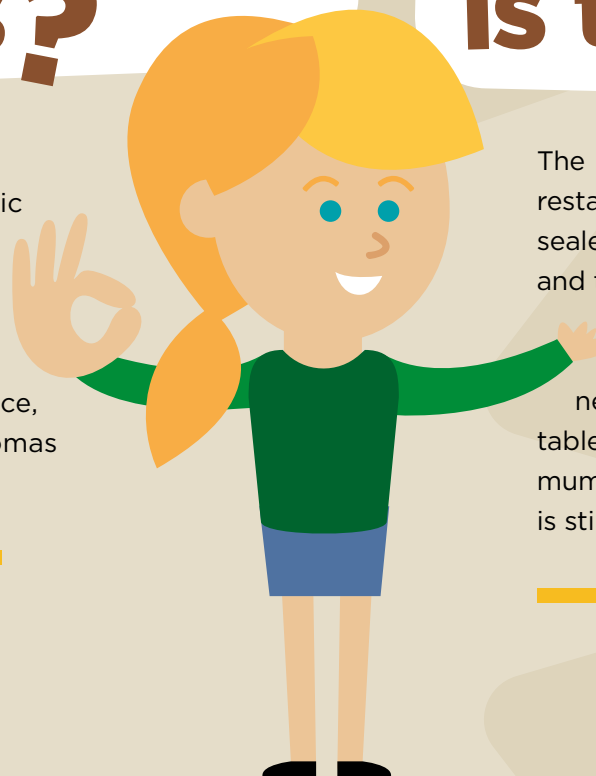
Does the same apply for restaurants?

Restaurateurs must also observe the rules of domestic conservation: in order to **avoid oxidation** of extra virgin olive oil they must pay attention to light (sunlight and artificial), to heat, and to temperature, and they must always close the product carefully to guarantee the consumer a unique sensory experience, thanks to a well-preserved product with its bold aromas and flavours intact.

How important is the container?

The Law forbids the use of traditional olive oil cruets. On restaurant tables it is only allowed to use of bottles with a sealed **stopper** to prevent subsequent re-filling of the bottle and to protect the product, guaranteeing its quality.

A restaurateur observing these rules and respecting the quality of the extra virgin olive oil served will never present his customers with a large bottle on the table. Instead, he will use medium-small sized bottles (maximum 500 ml), which allows his guests to taste a product that is still fresh, fragrant and, above all, good and non-oxidized.



Discovering a world of flavours

Tasting different products is the best way to really get to know extra virgin olive oil and do it justice on the table, matching each dish with the most suitable extra virgin olive oil.

Italians are spoilt for choice: there are 500 different olive oil cultivars, which give life to as many extra virgin olive oils, with different sensory profiles. In addition, the so-called "blends", which arise from skilled combination of various olive oils, further increase the range of available products, offering even the most demanding taste buds the opportunity to experience different flavours and harmonies.



The Experts' point of view



Elisabetta Bernardi
Nutritionist, professor of Anthropometry at the University of Bari and author of the Italian documentary "Superquark"

"Extra virgin olive oil is the leading actor of the so-called "healthy diet", that is, the Mediterranean Diet. Extra virgin olive oil is good for our heart, it helps us to keep fit and to control our weight, performing a real 'anti-aging' action. Furthermore, this extraordinary condiment helps us to digest well and to absorb essential nutrients such as fat-soluble vitamins".



Anna Cane
President of the Olive Oil Group of Assitol - Italian Association of the Edible Oils Industry

"Food quality and safety are the basis of stakeholders' activity over the entire olive oil supply chain. Extra virgin olive oil's producers operate with increasing rigor in order to offer consumers the quality and taste they expect. However, if we want to appreciate the best of the health and sensory benefits of this product, it is important not to break the chain of correct storage.



Sonia Re

Director of PAIC - Professional Association of Italian Chefs

“Chefs and restaurateurs increasingly feel the need to combine taste and healthy nutrition and they make the role of extra virgin olive oil even more central in high-quality cuisine. Such an important product must be well preserved, almost jealously guarded. In this way, the offer of healthy, tasty and safe gastronomy, which Italians demand with increasing conviction, will be more credible.”



Tullia Gallina Toschi

Professor of Food Science and Technology at the University of Bologna Alma Mater Studiorum and coordinator of the research project "Oleum"

“The rules for proper storage are essential to guarantee the sensory richness and authenticity of extra virgin olive oil over time and throughout the supply chain. Our researchers, through the “Oleum” project, of which Italy is the leader, are very committed to the definition of analysis systems able to verify the quality of our olive oils. In any case, a path of information and awareness for consumers is increasingly important because they know very little about our “green gold” and its organoleptic characteristics.”



Agostino Macri

Head of Food Safety of the National Consumers Union

“All the olive oils placed on the market in common distribution channels, independent of their origin, must be free from risks for consumer’s health. However, it is possible to find extra virgin olive oils at very low prices, as a result of promotional policies which, unfortunately, do not always reward the commitment of the olive oil sector, with the potential adverse effect of confusing the consumer during purchases”.

At the supermarket:

how to recognize a well-preserved extra virgin olive oil?

The **supermarket** is the place where the consumer most frequently purchases extra virgin olive oil. According to statistics, over 90% of extra virgin olive oil sales are concentrated in large-scale retail trade.

Generally, large chains are very careful to preserve the products well, keeping the temperature at a suitable level and avoiding exposure to sunlight or other light **during storage**. However, to avoid unpleasant surprises, it is always good to pay attention to the product bought.

Dark bottles, currently adopted by the majority of olive oil companies, protect extra virgin olive oil from light. **Beware of colour**. The colour of olive oils can range from golden yellow to a full range of greens. On the contrary, a red-orange colour is a warning sign of a product that, unfortunately, has been oxidized. If, on opening the bottle you notice an irregular colour, just notify the store and ask for a replacement.

How much oil is consumed on average in Italy ?

According to the International Olive Oil Council's data, Italians consume yearly about 10.5 kg of extra virgin olive oil per capita. Overall, we are talking about almost 600 thousand tons of "**green gold**" used in our kitchens: extra virgin olive oil just goes with everything!

Residues at the bottom of the bottle: is the extra virgin olive oil bad ?

If you notice some residues on the bottom of the bottle, it is simply **natural sedimentation** of suspended substances, typical, for example, of unfiltered oils.



Vademecum

Guide for the correct storage of extra virgin olive oil



1

Darkness is the olive oil's best friend. Excess lighting affects the quality of extra virgin olive oil. The olive oil bottle must not be exposed to direct sunlight or to any type of artificial light.

2

Keep it cool. Temperature is essential to maintain the properties and taste of the olive oil. Ideally, our precious "green gold" should be stored at a temperature that is neither too hot nor too cold

3

Beware of draughts. It is always good to close the cap carefully after use to avoid the risk of oxidation.

4

Attention to the expiry date. The date within which it is preferable to consume extra virgin olive oil is always indicated on each bottle. According to the International Olive Oil Council, this cannot be longer than 24 months.

5

Far from impregnating odours. Like all fats, extra virgin olive oil works a bit like a sponge. It is therefore advisable to keep it away from cans of paint, very fragrant detergents, and rooms with mould or full of smoke.

6

Outside home, pay attention to the container. The law forbids use of traditional old olive oil containers in favour of bottles with sealed caps. A dark glass bottle is preferable.

7

Pay attention to any unusual colour. The colour of extra virgin olive oil can vary from golden yellow to bright green, but it must not be orange-red.



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