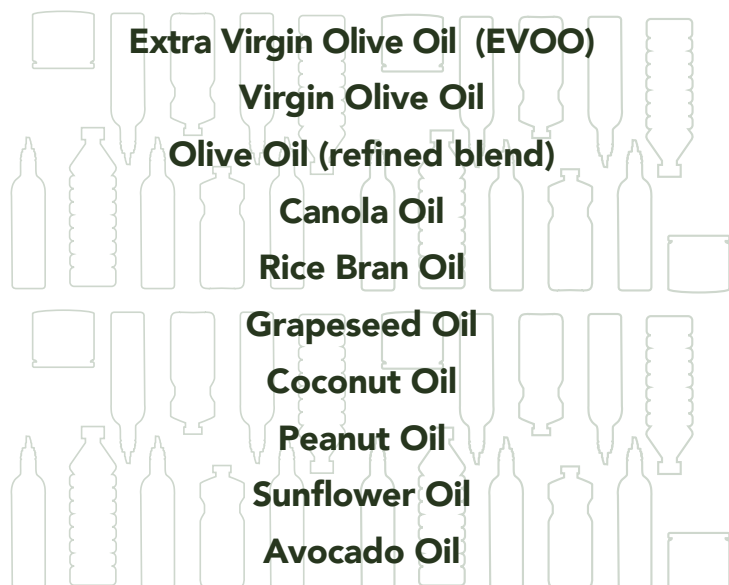


# Cooking with Extra Virgin Olive Oil

A recently published research paper assessed the most common supermarket cooking oils, and determined which is the most suitable for use when cooking.



## OILS TESTED:



## STANDARD DOMESTIC COOKING TEMPERATURES:



## WHAT HAPPENS WHEN YOU HEAT COOKING OILS?

### Chemical changes

(e.g. oxidation, hydrolysis) – this can lead to the production of potentially harmful compounds (e.g. polar compounds) that are linked with negative health outcomes.

Commercial kitchens regularly assess the levels of **polar compounds** in cooking oil – on average,

**25%** of polar compounds is the limit to ensure the oil is safe for continued use.

### Physical changes

(e.g. thickens, foams).



Olive Wellness  
INSTITUTE™



**Oils heated gradually**

(over 20 minutes)  
from 25 to 240°C.

HIGHER THAN  
DOMESTIC COOKING  
TEMPERATURES



**Oils heated**

**at 180°C**  
for 6 hours.

LONGER DURATION THAN  
SLOW COOKING METHODS IN  
A DOMESTIC KITCHEN

**KEY RESULTS:**

EVOO was the most stable oil of those tested – in both tests, EVOO yielded lower levels of polar compounds and trans fats when compared with other oils – Canola oil, Grapeseed Oil and Rice Bran Oil performed the worst and produced very high levels of polar compounds and trans fats.



**This shows that EVOO is the safest and most stable oil to cook with**

**WHY?**



This research showed that **cooking oil smoke point is NOT the best predictor** of oil stability and suitability for cooking at domestic temperatures.

It showed that the best predictors of an oil's stability and safety when cooking are the **oxidative stability**, the amount of **poly-unsaturated fatty acids** (PUFA) (more prone to oxidation than mono-unsaturated fatty acids (MUFA)) and saturated fatty acids, the natural content of antioxidants, and the **level of refining** that has occurred in the oil production process.



Results showed that EVOO performed best when compared with other common cooking oils.



After heating EVOO contained only trace levels of trans fats, retained a high level of antioxidants and had a better fatty acid profile compared with all other cooking oils tested.



After heating, EVOO was highest in antioxidants and low in PUFA (high in MUFA) = High oxidative stability (and will not produce high levels of harmful oil products).



**These positive results for EVOO were achieved despite using temperatures and cooking times above those commonly used in domestic kitchens.**