שורשים של חדשנות –הכנס השני של ענף הזית בתל חי
ראשון המסיק :בין בריאות ל - Longevity

A Spoonful a Day?

Olive oil, a longer life, and a healthier old age

What recent science says, and what it is still learning



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Living longer, living well

People have praised olive oil for thousands of years. Modern science now asks a precise question: does the oil in our kitchen add years, and good years?

Lifespan

How long we live, measured by deaths from any cause, from heart disease, from cancer and from dementia.

Healthspan

How well we live, measured by thinking, movement, independence and quality of life.

Four recent lines of evidence, one honest conclusion.



92,000 people, 28 years

19%

lower risk of death from any cause among those eating the most olive oil

Two Harvard cohorts, the Nurses' Health Study and the Health Professionals Follow-up Study, followed 92,383 adults who were free of heart disease and cancer at the start, for 28 years. During that time 36,856 died. Those eating more than half a tablespoon of olive oil a day had a hazard ratio of 0.81.

−19%
deaths from heart disease

−17%
deaths from cancer

−18%
deaths from respiratory disease

−29%
deaths from neurodegenerative disease

Guasch-Ferré M, Li Y, Willett WC, et al. Consumption of olive oil and risk of total and cause-specific mortality among U.S. adults. J Am Coll Cardiol 2022;79(2):101-112. doi:10.1016/j.jacc.2021.10.041

Seven cohorts, 681,325 people

A 2024 meta-analysis pooled seven cohorts, 681,325 participants with an average age between 41 and 67, and found the same direction.

15%
lower all-cause mortality (HR 0.85)

16%
lower cardiovascular mortality (HR 0.84)

11%
lower cancer mortality (HR 0.89)

More olive oil, lower mortality overall, though the size of the effect varies a lot between studies.

del Saz-Lara A, Saz-Lara A, Cavero-Redondo I, et al. Association between olive oil consumption and all-cause, cardiovascular and cancer mortality in adult subjects: a systematic review and meta-analysis. Food Funct 2024;15:11640-11649. doi:10.1039/d4fo04161e

A small spoonful, a smart swap

7 g
more than half a tablespoon a day: 19% lower risk of death

4·5 g
up to a teaspoon a day: already a 12% lower risk of death (average intake in that group: 1.6 g)

8–34%
lower risk when 10 g a day of butter, margarine, mayonnaise or dairy fat is swapped for olive oil

Swap, do not just add.



Swapping other vegetable oils for olive oil showed no clear gain in this study.

Guasch-Ferré M, Li Y, Willett WC, et al. J Am Coll Cardiol 2022;79(2):101-112. doi:10.1016/j.jacc.2021.10.041

From observation to randomized trials

PREDIMED

7,447 high-risk adults in Spain. A Mediterranean diet supplemented with extra virgin olive oil had fewer major cardiovascular events than advice to eat less fat (HR 0.69).

CORDIOPREV

1,002 patients with coronary disease, followed for 7 years. A Mediterranean diet rich in extra virgin olive oil prevented more major cardiovascular events than a low-fat diet (HR 0.72 to 0.75).

PREDIMED, 2026 analysis

Observational, 7,102 participants. The top third of extra virgin olive oil intake (about 49 g a day) had 25% fewer cardiovascular events. Common olive oil showed no significant benefit.

The tested intervention was the Mediterranean diet. Olive oil is its signature ingredient.



Estruch R, et al. N Engl J Med 2018;378:e34 (PREDIMED; republished with revised analyses after the 2013 report was withdrawn) | Delgado-Lista J, et al. Lancet 2022;399:1876-1885 (CORDIOPREV) | de Rojas JP, Toledo E, Estruch R, Guasch-Ferré M, et al. Am Heart J 2026;291:175-185. doi:10.1016/j.ahj.2025.08.021

The aging brain



28%

lower risk of dementia-related death with more than 7 g of olive oil a day (HR 0.72)

In 92,383 adults followed for 28 years there were 4,751 dementia-related deaths. The link held regardless of overall diet quality. It was clear in women and not significant in men.

2026: virgin olive oil, gut bacteria and thinking

In 656 older adults with overweight and metabolic syndrome, at high risk of cognitive decline, higher virgin olive oil intake went with cognitive preservation over two years and a more diverse gut microbiota. Higher common olive oil intake went with less diversity and faster decline.

Tessier AJ, et al. Consumption of olive oil and diet quality and risk of dementia-related death. JAMA Netw Open 2024;7(5):e2410021. doi:10.1001/jamanetworkopen.2024.10021 | Ni J, Nishi SK, Babio N, et al. Total and different types of olive oil consumption, gut microbiota, and cognitive function changes in older adults. Microbiome 2026;14(1):68. doi:10.1186/s40168-025-02306-4

Aging well

Longevity is also independence. A 2026 survey of 180 physically active adults aged 41 to 80, all following a Mediterranean diet, asked how they rate their own physical health, and how that changes with age.

−0.35

Under 4 tablespoons of extra virgin olive oil a day: self-rated physical health fell with age.

0.0

4 or more tablespoons a day: no significant fall with age.

A snapshot, not a trial, and physical function still declined with age in both groups.

Conde-Pipó J, et al. Protective effect of extra virgin olive oil (EVOO) consumption on the physical component of health-related quality of life in aging adults. Eur J Nutr 2026;65(2):47. doi:10.1007/s00394-026-03906-y

The suspects inside the bottle

Oleic acid

The main fat of olive oil, monounsaturated, which can take the place of saturated fat in the diet.

Phenolics

Hydroxytyrosol, oleocanthal, oleacein and their relatives. In cells and animals they act on inflammation, autophagy and other pathways of aging.

EFSA, 2011

EFSA concluded that olive oil polyphenols, measured as hydroxytyrosol and its derivatives, protect LDL particles from oxidative damage, at 5 mg a day. Some oils contain too little to reach it.

In people, how much each phenolic adds to longevity is still being worked out.



Fernández del Río L, Gutiérrez-Casado E, Varela-López A, Villalba JM. Olive oil and the hallmarks of aging. Molecules 2016;21(2):163. doi:10.3390/molecules21020163 | Velotti F, Bernini R. Hydroxytyrosol interference with inflammaging via modulation of inflammation and autophagy. Nutrients 2023;15(7):1774. doi:10.3390/nu15071774 | EFSA Panel on Dietetic Products, Nutrition and Allergies. Scientific opinion on polyphenols in olive and protection of LDL particles from oxidative damage. EFSA Journal 2011;9(4):2033. doi:10.2903/j.efsa.2011.2033

Not every olive oil is the same

Extra virgin and common

PREDIMED 2026: the top third of extra virgin olive oil intake had 25% fewer cardiovascular events; common olive oil, without polyphenols, showed no significant benefit.

Virgin and common

Microbiome 2026: virgin olive oil went with cognitive preservation and a richer gut microbiota; common olive oil (refined and pomace oils) with a less diverse one.

The big cohorts

They could not separate the types of olive oil people used, so their results blend all oils together.

Quality may be the missing variable, and that is where growers, millers and scientists meet.

de Rojas JP, et al. Am Heart J 2026;291:175-185. doi:10.1016/j.ahj.2025.08.021 | Ni J, et al. Microbiome 2026;14(1):68. doi:10.1186/s40168-025-02306-4 | Tessier AJ, et al. JAMA Netw Open 2024;7(5):e2410021 | NIA research highlight on olive oil and dementia-related death

How to read the numbers

Association, not proof

Cohorts watch what people eat and what happens later. They cannot prove that olive oil alone made the difference.

A pattern, not a pill

Olive oil comes with vegetables, legumes, fish and a way of life. The trials tested the whole Mediterranean diet.

Evidence that adds up

Cohorts, pooled analyses, randomized trials and laboratory mechanisms point the same way, which is why the story is convincing.



Convincing is not the same as complete, and science keeps improving the picture.

Harvard Health Publishing, Harvard study: high olive oil consumption associated with longevity | Guasch-Ferré M, et al. J Am Coll Cardiol 2022 | del Saz-Lara A, et al. Food Funct 2024;15:11640-11649. doi:10.1039/d4fo04161e | Delgado-Lista J, et al. Lancet 2022;399:1876-1885

What if every bottle told you its dose of longevity?

What should it measure, who should check it, and would you choose your oil by it?

Thank you

