AVIAS RANCH

The Health Page

Our Mission: Promoting Credible Science and the Health Benefits of Extra Virgin Olive Oil

At Avias Ranch, our mission transcends the production of premium Extra Virgin Olive Oil (EVOO). While we are passionate about crafting high-quality EVOO, we are equally dedicated to advancing the understanding and appreciation of EVOO's health benefits through credible science. Our role goes beyond simply offering a product; we aim to provide solid, evidence-based information that educates, informs, and empowers you to make decisions rooted in science, not just unsupported vendor claims.

We also believe that one of our responsibilities is to demystify the science behind EVOO and its health-promoting properties. In a world filled with misinformation and exaggerated claims, we aim to promote only credible, peer-reviewed evidence about the health benefits of EVOO and to so in a way that is understandable and informative. This mission is central to everything we do, as we seek to offer more than just a product—we offer the truth, grounded in scientific research.

Our Commitment to Credible Science

Through our work, we aim to cultivate a deeper understanding of EVOO's health benefits and to try to promote scientific literacy of its composition and the health benefits.

Evidence Over Claims: The Importance of Credibility

In an era where health claims are often sensationalized or unsubstantiated, we believe that providing clear, trustworthy, and science-backed information is an essential proof of product. We believe that providing credible evidence is not just a responsibility—it's a duty. Our commitment to science means that we are not content with general statements or broad assertions about EVOO's health benefits. But on those components that have been shown to effect these benefits. through robust, peer-reviewed research that clearly demonstrates their positive health effects.

Whether it's heart health, cognitive function, or anti-inflammatory properties, we aim to highlight the actual science behind each of these benefits, the components identified that you should find in an extra virgin olive oil, and how they work Rather than relying on buzzwords or vague promises, we will present findings from clinical studies, trials, and academic research that unequivocally demonstrate those benefits in a way that is meaningful and understandable referenced to the peer reviewed journals they appear.

With this approach, we hope to empower individuals to make well-informed decisions about their health, knowing that they are acting on the basis of sound science rather than unverified claims.

A Commitment to Empowering with Knowledge

We believe that people who are informed about the foods they consume are better equipped to make healthier choices. As part of our commitment to education, we include articles, blog posts, research summaries, and even interactive content to help you learn not only *what* EVOO does for your health, but *why* it works—providing you scientific explanation for its benefits and how it interacts with your body.

In addition, we are working toward facilitating open conversations in the health and wellness community about the evolving science behind olive oil. By bringing experts and practitioners together to share their knowledge and insights, we aim to be a trusted authority in the health benefits of EVOO and to raise awareness about how it can be a vital part of a holistic, healthy lifestyle.

Proven Health Benefits of Extra Virgin Olive Oil. What the Evidence Says

The health benefits of EVOO are grounded in years of research and clinical studies. Here are some of the science-backed health benefits of EVOO that have appeared in peer-reviewed literature and clinical trials and the components that are identified as active and should be in your EVOO

- **Heart Health**:
    - EVOO is well known for its positive effects on cardiovascular health, particularly its ability to reduce the risk of heart disease. Studies have shown that it can lower levels of LDL (bad cholesterol) while increasing HDL (good cholesterol). It also improves endothelial function and reduces inflammation.
    - Notable studies: The PREDIMED study (Primary Prevention of Cardiovascular Disease with a Mediterranean Diet) demonstrated that EVOO consumption is associated with a reduced risk of heart disease and stroke.
    - **Key Components:**
        - **Oleic Acid (Monounsaturated Fatty Acid)**
            - Reduces LDL cholesterol and improves HDL cholesterol levels.
            - Equivalent drug action: Statins (e.g., atorvastatin) lower LDL cholesterol.
        - **Hydroxytyrosol**
            - Protects LDL cholesterol from oxidative damage.
            - Equivalent drug action: Antioxidant supplements (e.g., Vitamin E derivatives).
        - **Oleuropein**
            - Improves vascular endothelial function.
            - Equivalent drug action: Vasodilators (e.g., nitroglycerin).

- **References: literature podcast video**

Estruch, R., Ros, E., Salas-Salvadó, J., et al. (2018). *Primary prevention of cardiovascular disease with a Mediterranean diet supplemented with extra-virgin olive oil or nuts.* **New England Journal of Medicine**, 378(25), 2441–2452. DOI: 10.1056/NEJMoa1800389

Casas, R., Sacanella, E., Urpí-Sardà, M., et al. (2016). *The effects of the Mediterranean diet on biomarkers of vascular wall inflammation and plaque vulnerability in subjects with high cardiovascular risk.* **European Journal of Nutrition**, 55(6), 2045–2053. DOI: 10.1007/s00394-015-1002-1

- *George, E. S., et al. (2019). "The effect of high-polyphenol extra virgin olive oil on cardiovascular risk factors: A systematic review and meta-analysis."* Critical Reviews in Food Science and Nutrition, 59(18), 2772–2795.
- *Guasch-Ferré, M., et al. (2020). "Consumption of olive oil and risk of total and cause-specific mortality among U.S. adults: A prospective cohort study."* Journal of the American College of Cardiology, 75(15), 1729–1739.

- **Anti-Inflammatory Effects**:
  - EVOO is rich in oleocanthal, a compound that has been shown to have anti-inflammatory properties comparable to ibuprofen. Regular consumption of EVOO can reduce chronic inflammation, a key factor in many diseases.
  - Studies have highlighted its role in reducing markers of inflammation like C-reactive protein (CRP).
  - **Key Compounds:**
    - **Oleic Acid (Monounsaturated Fatty Acid)**
      - Reduces LDL cholesterol and improves HDL cholesterol levels.
      - Equivalent drug action: Statins (e.g., atorvastatin) lower LDL cholesterol.
    - **Hydroxytyrosol**
      - Protects LDL cholesterol from oxidative damage.
      - Equivalent drug action: Antioxidant supplements (e.g., Vitamin E derivatives).
    - **Oleuropein**
      - Improves vascular endothelial function.
      - Equivalent drug action: Vasodilators (e.g., nitroglycerin).
  - References

Lucas, L., et al. (2021). "Molecular mechanisms of inflammation. Anti-inflammatory benefits of oleocanthal from extra virgin olive oil." Current Pharmaceutical Design, 27(2), 1–10.

Tuck, K. L., & Hayball, P. J. (2020). "Major phenolic compounds in olive oil: metabolism and health effects." Journal of Nutritional Biochemistry, 86, 108490.

- **Cancer Prevention**:
  - EVOO contains antioxidants, including vitamin E and polyphenols, that help protect against oxidative stress and DNA damage, factors linked to cancer development. Some studies suggest that EVOO, as part of the Mediterranean diet, can lower the risk of certain cancers, particularly breast and colon cancer.
  - Research indicates that EVOO's phenolic compounds may help reduce the spread of cancer cells and even induce cancer cell death (apoptosis).
  - **Key Compounds:**
    - **Squalene**
      - Reduces oxidative stress and DNA damage.
      - Equivalent drug action: Antioxidant supplements (e.g., Coenzyme Q10).
    - **Oleuropein**
      - Induces apoptosis (cell death) in cancer cells.
      - Equivalent drug action: Anti-cancer drugs (e.g., paclitaxel).
    - **Lignans**
      - Modulate hormone levels, potentially reducing hormone-dependent cancers.
      - Equivalent drug action: Selective estrogen receptor modulators (SERMs) like tamoxifen.
- **References**
  - Menendez, J. A., Papadimitropoulou, A., Vellon, L., Lupu, R. (2006). *A genomic explanation connecting "Mediterranean diet," olive oil and cancer: oleic acid, the main monounsaturated fatty acid of olive oil, induces selective expression of the Her-2/neu (erbB-2) oncogene suppressor PEA3.* **Clinical and Translational Oncology**, 8(2), 93–98.
    DOI: 10.1007/s12094-006-0072-x
  - Fabiani, R., Minelli, L., Rosignoli, P. (2016). *Antioxidants, cancer, and longevity.* **Critical Reviews in Food Science and Nutrition**, 56(4), 582–614.
    DOI: 10.1080/10408398.2012.710347
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- **Brain Health and Cognitive Function**:
  - EVOO may protect against cognitive decline and diseases like Alzheimer's. Its high content of polyphenols helps combat oxidative stress and inflammation in the brain, both of which are involved in neurodegenerative diseases.
  - Studies suggest that the monounsaturated fats in EVOO may improve memory and cognitive function in aging populations.
  - **Key Compounds:**
    - **Oleuropein**
      - Reduces amyloid-beta plaque formation.
      - Equivalent drug action: Alzheimer's treatments (e.g., donepezil)
    - **Hydroxytyrosol**
      - Protects against neuroinflammation and oxidative stress.
      - Equivalent drug action: Antioxidants (e.g., alpha-lipoic acid).
    - **Oleocanthal**
      - Facilitates the clearance of amyloid-beta proteins.

        - Equivalent drug action: Experimental therapies targeting amyloid-beta
    - ApoE
- **References**

Monti, M. C., Margarucci, L., Tosco, A., et al. (2012). *Oleuropein aglycone and derivatives as potential inhibitors of amyloid aggregation.* **Biochimica et Biophysica Acta (BBA) - General Subjects**, 1820(2), 137–144.
DOI: 10.1016/j.bbagen.2011.10.011

Visioli, F., Davalos, A. (2008). *Polyphenols and brain health: Focus on Alzheimer's disease.* **Molecular Aspects of Medicine**, 29(5), 449–458.
DOI: 10.1016/j.mam.2008.09.001

- **Type 2 Diabetes**:
    - EVOO has been shown to improve insulin sensitivity, making it a useful dietary addition for individuals with or at risk of type 2 diabetes. It can also help lower blood sugar levels, contributing to better overall metabolic health.
    - Research indicates that diets rich in EVOO are linked to a reduced risk of type 2 diabetes, especially when part of a Mediterranean-style diet
    - **Key Compounds:**
        - **Hydroxytyrosol**
            - Improves insulin sensitivity and reduces oxidative stress.
            - Equivalent drug action: Metformin.
        - **Oleuropein**
            - Enhances glucose uptake.
            - Equivalent drug action: Sodium-glucose cotransporter-2 (SGLT-2) inhibitors (e.g., canagliflozin).
    - **References**

Schwingshackl, L., Hoffmann, G. (2014). *Adherence to Mediterranean diet and risk of diabetes: A systematic review and meta-analysis.* **Public Health Nutrition**, 17(9), 1756–1767. DOI: 10.1017/S1368980013002633

Konstantinidou, V., Covas, M. I., Munoz-Aguayo, D., et al. (2010). *Inflammation markers and metabolic syndrome among Mediterranean diet followers: A randomized controlled trial.* **Archives of Internal Medicine**, 170(8), 704–712.
DOI: 10.1001/archinternmed.2010.88

- **Weight Management**:
    - EVOO may play a role in weight management by helping to control appetite and regulate fat metabolism. Its high fat content, despite being calorie-dense, has been found to promote satiety, helping to control overeating.
    - Studies have suggested that EVOO, as part of a balanced diet, can be effective in weight management and fat reduction, particularly abdominal fat.
    - **Key Compounds:**

        - **Oleic Acid**
            - Promotes satiety and reduces calorie intake.
            - Equivalent drug action: Appetite suppressants (e.g., phentermine).
        - **Polyphenols (e.g., Hydroxytyrosol)**
            - Modulate fat metabolism and reduce adipogenesis.
            - Equivalent drug action: Lipase inhibitors (e.g., orlistat)
    - **References**

Romaguera, D., Norat, T., Vergnaud, A. C., et al. (2010). *Mediterranean dietary patterns and body mass index: A systematic review and meta-analysis.* **Obesity Reviews**, 12(11), 1095–1106.
DOI: 10.1111/j.1467-789X.2010.00743.x

Estruch, R., Martínez-González, M. A., Corella, D., et al. (2013). *Effects of a Mediterranean-style diet on weight loss and waist circumference: A randomized trial.* **Annals of Internal Medicine**, 158(1), 1–9.
DOI: 10.7326/0003-4819-158-1-201301010-00003

- **Bone Health**:
    - EVOO is thought to have a positive effect on bone health due to its polyphenol content, which may help protect against bone loss and improve bone density. This is especially important for aging populations or individuals at risk of osteoporosis.
    - Some studies have suggested that EVOO can stimulate the production of bone-forming cells (osteoblasts) and prevent the activity of bone-resorbing cells (osteoclasts).
    - **Key Compounds:**
        - **Hydroxytyrosol**
            - Stimulates osteoblast activity.
            - Equivalent drug action: Bisphosphonates (e.g., alendronate).
        - **Oleuropein**
            - Inhibits bone resorption by osteoclasts.
            - Equivalent drug action: RANK ligand inhibitors (e.g., denosumab).
    - **References**

García-Gavilán, J. F., Bulló, M., Canudas, S., et al. (2018). *Extra virgin olive oil consumption and bone health-related biomarkers: A randomized controlled trial.* **Journal of Clinical Endocrinology & Metabolism**, 103(8), 3007–3015.
DOI: 10.1210/jc.2017-02293

Fernández-Real, J. M., Bulló, M., Moreno-Navarrete, J. M., et al. (2012). *A Mediterranean diet enriched with olive oil is associated with higher serum osteocalcin concentrations: A randomized controlled trial.* **Journal of Clinical Endocrinology & Metabolism**, 97(10), 3792–3799.
DOI: 10.1210/jc.2012-2221

- **Digestive Health**:

- EVOO has been shown to promote a healthy gut by supporting the growth of beneficial bacteria in the microbiome. It has also been linked to a reduced risk of gastrointestinal disorders, such as Crohn's disease and ulcerative colitis.
- Research suggests that EVOO's anti-inflammatory properties also extend to the digestive system, aiding in the prevention of gastric ulcers and improving overall gut health.
- **Key Compounds:**
  - **Polyphenols (e.g., Oleuropein)**
    - Promote beneficial gut microbiota.
    - Equivalent drug action: Probiotics.
  - **Oleic Acid**
    - Supports gut lining integrity.
    - Equivalent drug action: Mucosal protectants (e.g., sucralfate)
- **References**

Servili, M., Esposto, S., Fabiani, R., et al. (2009). *Phenolic compounds in olive oil: Antioxidant, health and organoleptic activities according to their chemical structure.* **Inflammopharmacology**, 17(2), 76–84.
DOI: 10.1007/s10787-008-8014-y

Sciascia, R., Trifirò, G., Greco, E., et al. (2015). *Olive oil polyphenols and gut microbiota.* **Current Pharmaceutical Design**, 21(29), 4355–4362.
DOI: 10.2174/1381612821666150813142834

- **Skin Health**:
  - EVOO is beneficial for skin health due to its antioxidant, anti-inflammatory, and moisturizing properties. It helps protect the skin from premature aging, UV damage, and oxidative stress.
  - Some studies suggest that applying EVOO to the skin can help heal wounds, prevent infections, and improve overall skin hydration
  - **Key Compounds:**
    - **Squalene**
      - Moisturizes and protects against UV damage.
      - Equivalent drug action: Emollients and sunscreens.
    - **Vitamin E**
      - Reduces oxidative damage to skin cells.
      - Equivalent drug action: Topical antioxidants (e.g., Vitamin E creams).
  - **References**

Yashin, A., Yashin, Y., Xia, X., Nemzer, B. (2017). *Antioxidant activity of olive oil components and their effect on skin aging.* **Journal of Cosmetic Dermatology**, 16(1), 55–62.
DOI: 10.1111/jocd.12297

Perrone, M., Donato, C., Picciolo, G., et al. (2012). *Use of olive oil as a skin moisturizer: A randomized study.* **Clinical Dermatology**, 30(2), 159–164.
DOI: 10.1016/j.clindermatol.2011.12.003

- **Liver Health**:
  - EVOO has been found to improve liver health by reducing fat accumulation in the liver and lowering markers of liver inflammation. It can also improve liver enzyme levels and prevent conditions like fatty liver disease (NAFLD).
  - Studies show that the compounds in EVOO may help protect the liver from oxidative stress and fatty deposits, supporting detoxification processes.
  - **Key Compounds:**
    - **Hydroxytyrosol**
      - Reduces fat accumulation and liver inflammation.
      - Equivalent drug action: Hepatoprotective drugs (e.g., silymarin).
    - **Squalene**
      - Protects liver cells from oxidative stress.
- References

Allouche, Y., Beltrán, G., Gaforio, J. J. (2011). *Extra virgin olive oil consumption reduces risk factors for liver steatosis.* **Journal of Nutrition Biochemistry**, 22(7), 565–572.
DOI: 10.1016/j.jnutbio.2010.04.006

Guasch-Ferré, M., Babio, N., Martínez-González, M. A., et al. (2013). *Mediterranean diet and liver health: A systematic review.* **Journal of Hepatology**, 59(4), 812–820.
DOI: 10.1016/j.jhep.2013.06.002

Learn More and Stay Informed

We're dedicated to keeping you informed about the latest scientific discoveries in Extra Virgin Olive Oil. Visit our blog and health resources for more updates and research findings. Join us in our mission to spread the science of olive oil and discover how small changes in your diet can lead to big improvements in your health!

https://lifespa.com/podcast/episode-101-olive-oil-benefits/

https://olivewellnessinstitute.org/about-us/

The Olive Wellness Institute™ is a social responsibility venture, sponsored by Cobram Estate Olives Limited and informed by an independent scientific Advisory Panel, with a mission to promote the dissemination of credible science related to Extra Virgin Olive Oil and other products derived from the olive tree.

Cobram Estate Olives Limited is a leading producer of premium Extra Virgin Olive Oil with olive groves and olive mills in Australia and California USA, and owns Australia's leading olive oil brands Cobram Estate and Red Island.

Through the Olive Wellness Institute™, Cobram Estate Olives Limited will help to educate, empower collaboration and grow the body of health-related evidence for olive products.

This project is also partially funded by Hort Innovation, using the Olive Fund research and development levy and contributions from the Australian Government. Hort Innovation is the grower owned, not-for-profit research and development corporation for Australian horticulture.

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