

Olive Leaf Extract

by Margy Squires

Immune Power from a Plant



The wonders of olive leaf extract as a powerful ally for immune defense seems unbelievable.

After all, the man made arsenal of flu shots, cold and sinus remedies fall miserably short of the wellness target. Added to that is the finding that even bacteria prove to be stronger or smarter than current antibiotics. In an attempt to counteract that fact, the Center for Disease Control issued a warning in November 2010 that antibiotics are over prescribed 50% of the time and adults alone spend an estimated \$1.1 billion a year on unnecessary prescriptions for upper respiratory infections that are viral in nature. Antibiotics can't kill viruses. Although the picture may look more like science fiction than reality, we stand defenseless indeed against super bugs and mutant viruses. Be afraid. Be very, very afraid! Or better yet, consider employing olive leaf extract and a strategy of an ounce of prevention versus a pound of "cure."

Olive leaf extract (OLE) research in vitro (within glass) and on humans document its ability to fight effectively against multiple forms of harmful viruses and bacteria. OLE also appears to selectively eliminate bacteria, particularly in the digestive tract. Perhaps the reason why OLE is so effective is that the extract reflects properties of the parent olive tree, which is very disease resistant. History cites olive trees that are hundreds of years old and some in the Garden of Gethsemane that date back to the time of Christ. That's an impressive resume. But you don't have to take my word for it. Like most resumes, you'll want to check the experience record for yourself. What follows is a collection of studies that will attest to OLE's competency with a take away message in what OLE can do for you.

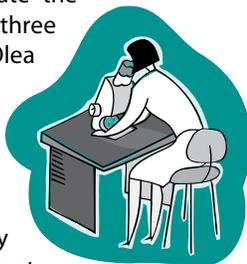
ANTIOXIDANT ACTIVITY - EGYPT

Biochemical studies on antioxidant and oxidant activities of some plant extracts.

[El-Khawaga et al. *Eur Rev Med Pharmacol Sci*. 2010 Sep;14(9):731-8.]

The aim of this study was to "investigate the antioxidant activities of extracts" from three plant leaves, one of which was olive leaf, *Olea europaea*. The researchers explain that amino acid structure can be modified by free radical damage. Using a bovine (amino acid) protein, the researchers added different concentrations of each plant into separate specimen dishes. They then observed the individual antioxidant activity and free radical scavenging ability of each concentration and each plant. Olive leaf had the "highest antioxidant activities" and considered "highly effective" per the researchers' conclusions.

Take Away Message: Your immune system is like an army that fights body wide against harmful substances but also against free radical damage. By protecting the cell itself, OLE offers antioxidant benefits on a pro-active basis which may help strengthen cells, tissue and organs from damage as in the above example on protein structures.



ANTIOXIDANT & ANTIMICROBIAL - KOREA

Antioxidant and antimicrobial activities of individual and combined phenolics in *Olea europaea* leaf extract.

[Lee OH, Lee BY. *Bioresour Technol*. 2010 May;101(10):3751-4. Epub 2010 Jan 27.]

The study authors state that "olive leaves have great potential

as a natural antioxidant. The current study was made to assess the antioxidant and antimicrobial activities of both the individual and combined phenolics in olive leaf extract." Their in vitro study against several microorganisms "showed that both the individual and combined phenolics exhibited good radical scavenging abilities, and also revealed superoxide dismutase (SOD)-like activity." The authors conclude that OLE did indeed possess both protective and antibacterial activities.

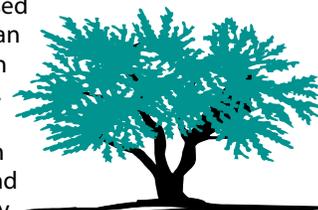
Take Away Message: Superoxide dismutase or SOD is an enzyme produced by cells to consume free radical superoxide. Think of it as "eating the bad stuff." Free radicals are a common biochemical byproduct of oxygenation (if you breathe, you use oxygen). So acting like a SOD in this case is an interesting antioxidant-like feature of OLE.

HEALTH BENEFITS - TURKEY

Olive tree (*Olea europaea*) leaves: potential beneficial effects on human health.

[El SN, Karakava S. *Nutr Rev*. 2009 Nov; 67(11):632-8.]

This paper explains OLE as "widely used intraditional remedies in European and Mediterranean countries such as Greece, Spain, Italy, France, Turkey, Israel, Morocco, and Tunisia. They have been used in the human diet as an extract, an herbal tea, and a powder and they contain many potentially bioactive compounds that may have antioxidant, antihypertensive, antiatherogenic, anti-inflammatory, hypoglycemic, and hypocholesterolemic properties. One of these potentially bioactive compounds is the secoiridoid oleuropein.



Continued

Olive Leaf Extract

continued

Other bioactive components found in olive leaves include related secoiridoids, flavonoids, and triterpenes." The authors also present evidence to support their belief that OLE is beneficial for human health.

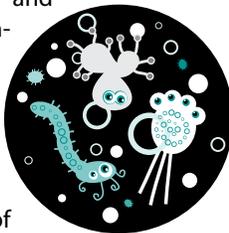
Take Away Message: The focus of this article is to present the immune side of OLE. However, plants often are multi-faceted in terms of health benefits. As this review shows, OLE also has properties that affect hypertension, cholesterol, inflammatory response and low blood sugar. While oleuropein is the most active of the plant secoiridoids, OLE also contains bioflavonoids and triterpenes (plant oils). The function of these components is to protect the plant from harm and those properties carry over as a benefit to defend us as well.

ANTIMICROBIAL ACTIVITY - AUSTRALIA

Antimicrobial activity of commercial *Olea europaea* (olive) leaf extract.

[Sudjana AN et al. *Int J Antimicrob Agents*. 2009 May;33(5):461-3. Epub 2009 Jan 9.]

In this study, olive leaf extract (*Olea europaea*) was tested against multiple microorganisms to investigate its activity against different types of bacteria in a lab setting. OLE proved most active against *Campylobacter jejuni*, *Helicobacter pylori* and *Staphylococcus aureus* [including methicillin-resistant *S. aureus* (MRSA)]. Investigators noted that OLE's specific activity of selecting and reducing only harmful bacteria "may have a role in regulating the composition of the gastric flora (leaving friendly bacteria intact) by selectively reducing levels of *H. pylori* and *C. jejuni*."



Take Away Message: MRSA (staph) infections are difficult to treat as they are resistant to broad spectrum of antibiotics; spread by physical touch, more susceptible to immune compromised individuals (especially in hospital, nursing care settings). Staph aureus infections can be as simple as a skin boil or enter the blood stream to infect the heart (endocarditis), blood stream (septicemia), lungs (pneumonia) and so on. Staph infections can be potentially lethal, especially in an immune compromised individual. The GI system depends on bacteria to digest food, make certain nutrients and requires a happy balance to guard against *Candida* (yeast) overgrowth. Most naturopaths believe that immunity and good health starts in the gut. Overall, OLE is a "smart" defender, knowing which germs are the enemy.

COLD & FLU CONSIDERATION - USA

Colds and influenza: a review of diagnosis and conventional, botanical, and nutritional considerations.

[Roxas M, Jurenka J. *Altern Med Rev*. 2007 Mar;12(1):25-48.]

The authors of this review look at conventional treatments for cold and flu primarily aimed at reducing symptoms with over the counter agents for cough, inflammation and congestion. Flu remedies may also include vaccines or prescribed anti-viral agents. They also highlight herb (including OLE) and supplemental nutritional therapies (vitamins A and C, zinc, whey protein, N-acetylcysteine, and DHEA) that may "help in the prevention and treatment of these conditions."

Take Away Message: At the time of the study, the authors' statistics were staggering. The common cold is the number one reason for U.S. doctor visits, causes 189 million lost school days and affects 1 billion adults a year. The flu is the leading cause of morbidity and mortality, with 20-25 million doctor visits and 36,000 deaths a year in the U.S. According to this study review, fortifying the immune system to prevent colds and flu is the better scenario.



INTESTINAL & RESPIRATORY HEALTH - PORTUGAL

Phenolic compounds and antimicrobial activity of olive (*Olea europaea* L. Cv. *Cobrançosa*) leaves.

[Pereira AP et al. *Molecules*. 2007 May 26;12(5):1153-62.]

This is another study that supports the activity of OLE against bacteria in vitro (within glass). The researchers first tested for active phenolic (plant) compounds and then tested them against microorganisms that could cause human gastrointestinal tract and respiratory infections. The gram positive organisms included (*Bacillus cereus*, *B. subtilis* and *Staphylococcus aureus*), gram negative bacteria (*Pseudomonas aeruginosa*, *Escherichia coli* and *Klebsiella pneumoniae*) and fungi (*Candida albicans* and *Cryptococcus neoformans*). The researchers found that olive leaf extract showed "an unusual combined antibacterial and antifungal action, which suggest their great potential as nutraceuticals, particularly as a source of phenolic compounds."



Take Away Message: You may not recognize the common conditions caused by the organisms above such as food poisoning, pneumonia, yeast overgrowth and staph infections (multiple threats to the body via skin, blood, heart). *Cryptococcus neoformans* is yeast that lodges in the respiratory tract with a nickname of "killer yeast." It's interesting that this 2007 study suggests OLE as a nutraceutical when in fact it already is a quite important one!

©2011 TyH Publications (M. Squires)

For more on immunity, olive leaf, cold and flu information, see our online Health Library at www.e-tyh.com and the following TyH Publications.

- ◆ A Formula for Success: Nutrients to Beat the Cold War
- ◆ Alpha Lipoic Acid, Defending the Liver
- ◆ Bioflavonoids: Color Yourself Healthy
- ◆ Build Immunity through Sleep
- ◆ Cold & Flu Season: What's in YOUR Medicine Cabinet?
- ◆ Foolin' the Flu
- ◆ Have a Healthy, Happy Holiday
- ◆ Immunity, Defend Yourself
- ◆ Olive Leaf Extract, Nature's Antibiotic
- ◆ Your Gut, Highway to Health

Published in *Health Points*. This article is protected by copyright and may not be reproduced without written permission. For information on a subscription, please call TyH Publications, 1-800-801-1406 or write TyH Publications, 12005 N. Saguaro Blvd., Ste 102, Fountain Hills, AZ 85268. E-mail editor@e-tyh.com. For information on TyH products, visit our website at www.e-tyh.com.