



ORGANIC OIL OF OREGANO

Minimum 80% Carvacrol

NPN 80033657

RESEARCH INFORMATION

Feature summary

Oil of oregano is no average herb. Before modern science could point the finger at bacteria, herbalists and traditional doctors used oregano to effectively treat infections of all kinds, both topically and internally. As an antimicrobial it has the power to directly kill bacteria, viruses, intestinal parasites, and fungal infections. As excessive use renders many antibiotics ineffective against resistant strains, natural remedies become increasingly valuable. Oil of oregano is one of the few remedies that can fight superbugs, including the methicillin-resistant *Staphylococcus aureus*.

Oil of oregano is also a powerful antioxidant capable of scavenging free radicals and preventing cellular damage. It is a more potent antioxidant than vitamin E, and is four times higher in antioxidants than blueberries, and 12 times higher than oranges. Oil of oregano has anti-inflammatory qualities as well as demonstrated anti-mutagenic and anti-carcinogenic properties.

Natural Factors Organic Oil of Oregano is wild-crafted Mediterranean oregano, hand harvested from the *Origanum vulgare* plant, and is available in both liquid and convenient softgel formats. To maintain the purity and concentration of the active ingredients the whole herb is gently steam-distilled without the use of chemicals. It is then blended in a 1:4 ratio with organic cold-pressed extra virgin olive oil to enhance absorption. Hundreds of studies have proven the synergistic power of the plant's volatile oils and phenols, especially carvacrol, thymol, and rosmarinic acid. Natural Factors Oil of oregano is guaranteed to contain a minimum of 80% carvacrol.

How it works

Lab studies have proven oil of oregano's capacity to inhibit the growth of, and kill, harmful pathogens. It has the ability to penetrate cell membranes and disrupt their integrity. The increased permeability, or "leaky" quality of the bacterial cell wall causes fluid to seep out, leading to cellular death. This ability to damage bacteria is common to the whole plant, as well as its active constituents, carvacrol and thymol. Oil of oregano also lowers the pH inside the bacteria, creating acidic conditions that inhibit metabolism and reproduction. Oil of oregano also works by boosting levels of white blood cells that fight off infection, such as cytotoxic and helper T-cells.

The anti-inflammatory effects of oil of oregano are due to rosmarinic acid, an active constituent that decreases the number of neutrophils (white blood cells that rush to a site and cause an inflammatory reaction) and eosinophils (white blood cells that produce harmful oxidative substances such as free radicals).

As an antioxidant, oil of oregano increases the activity and concentration of other antioxidants, and protects against cancer by preventing the growth of cancer cells at the DNA level. One of the main causes of coronary heart disease is oxidative damage; oil of oregano helps prevent heart disease by regulating the inappropriate oxidation of LDL ("bad") cholesterol.

Research

Every study seems to uncover another vital action of this highly medicinal herb. Traditionally valued for its antimicrobial properties, scientific research has identified multiple ways in which oil of oregano both kills bacteria and inhibits their growth. One study tested oil of oregano, carvacrol, and thymol in vitro at a variety of concentrations, and found the synergistic effects of carvacrol and thymol to be the main constituents responsible for oregano's antimicrobial effects (Lambert et al., 2001). Carvacrol and thymol individually increased cell wall permeability, decrease pH, and caused leakage of inorganic ions; together their effectiveness was complete (Lambert et al., 2001).

In a study on mice with cancerous growths, carvacrol prevented the DNA synthesis and thus the growth of cancer cells, offering promise for oil of oregano applications in cancer therapy (Zeytinoglu et al., 2003). Another study tested the effects of carvacrol on lung cancer cells, and found that treatment caused a decrease in cancer cells (Koparal and Zeytinoglu, 2003).

In traditional medicine, oregano is a valued remedy for gastrointestinal disorders, so it comes as no surprise that it has a clinical effect on parasites. An observational study of gut parasites found that six weeks of treatment with oil of oregano improved symptoms of *Blastocystis hominis* infection in 11 of 14 subjects, and resulted in a complete disappearance of symptoms in eight subjects (Force et al., 2000).

Oil of oregano has a well-deserved reputation as an antioxidant. In a study on rats with liver toxicity, treatment with carvacrol brought concentrations of enzymatic antioxidants back to normal levels throughout the system (Aristatile et al., 2009). A lab study of oregano tea and essential oil of oregano on copper-induced human LDL found that both the tea and the oil protected against oxidative damage, offering promising evidence of the potential heart-healthy effects of oregano. A later study on 48 patients with high blood lipids who were not taking medication resulted in an increase in HDL and a decrease in LDL over three months when treated with oil of oregano (Ozdemir et al., 2008). A study of *Oregano vulgaris* and other members of the Lamiaceae family corroborates the belief that rosmarinic acid is the constituent responsible for oregano's antioxidant benefits (Exarchou et al., 2002). Rosmarinic acid also relieves allergies in two ways: in a clinical study it decreased neutrophil and eosinophil numbers in nasal fluid tested over a period of 21 days, and in an animal study topical application had anti-inflammatory benefits after five hours due to its ability to scavenge reactive oxidative substances (Osakabe et al., 2004).

While carvacrol and rosmarinic acid are the primary active ingredients, it is important to remember the synergistic power of the whole herb in maintaining health. When studying the effect of oil of oregano against *Candida albicans* in mice, the germination and growth of the yeast were inhibited by both the whole herb and the isolated carvacrol; however, the subjects receiving the whole herb in a base of olive oil looked more vital overall than those receiving only carvacrol (Manohar et al., 2001).

Ingredients

Each Softgel Contains:

Organic Oil of Oregano* (*Origanum vulgare*)
(leaf (minimum 80% carvacrol).....180 mg
Vitamin E (*d*-alpha-tocopherol)
(non-GMO sunflower)..... 1 mg AT (1.49 IU)

Each 4 drops (0.16 mL) Contains:

Organic Oil of Oregano*
(*Origanum vulgare*) (aerial)..... 30 mg
(minimum 80% carvacrol)24 mg
Vitamin E (*d*-alpha-tocopherol)..... 1 mg AT (1.49 IU)

* Derived from wild-crafted Mediterranean oregano. The oil is extracted from the hand-picked leaves using steam-distillation, ensuring that the oil is chemical-free.

Recommended adult dose

180 mg softgels

1 softgel daily with food or as directed by a health care practitioner. Take a few hours before or after taking supplements containing iron, zinc, calcium or copper.

30 mL–60 mL liquid

4 drops daily directly under the tongue, mixed with water, or as directed by a health care practitioner. A sensation of warmth is normal.

Caution

Do not use if you are pregnant or breastfeeding, or if you have hypersensitivity or are allergic to herbs in the *Lamiaceae* family. Discontinue use if you experience gastrointestinal upset. Keep out of reach of children.

References

- Aristatile B., Al-Numair K.S., Veeramani C., Pugalendi K.V. (2009). Effect of carvacrol on hepatic marker enzymes and antioxidant status in D-galactosamine-induced hepatotoxicity in rats. *Fundam Clin Pharmacol*, 23(6):757-65.
- Exarchou, V. et al. (2002). Antioxidant activities and phenolic composition of extracts from Greek oregano, Greek sage, and summer savory. *J Agric Food Chem*, 50(19):5294-9.
- Force M., Sparks W.S., Ronzio R.A. (2000). Inhibition of enteric parasites by emulsified oil of oregano in vivo. *Phytother Res*, 14(3):213-4.
- Koparal A.T. and Zeytinoglu M. (2003). Effects of Carvacrol on a Human Non-Small Cell Lung Cancer (NSCLC) Cell Line, A549. *Cytotechnology*, 43(1-3):149-54.
- Kulisic, T., Krisko A., Dragovic-Uzelac V., Milos M., Pifat G. (2007). The effects of essential oils and aqueous tea infusions of oregano (*Origanum vulgare* L. spp. hirtum), thyme (*Thymus vulgaris* L.), and wild thyme (*Thymus serpyllum* L.) on the copper induced oxidation of human low-density lipoproteins. *Int J Food Sci Nutr*, 58(2):87-93.
- Lambert, R.J., Skandamis P. N., Coote P.J., Nychas .G.J. (2001). A study of the minimum inhibitory concentration and mode of action of oregano oil, thymol and carvacrol. *J Appl Microbiol*, 91(3):453-62.
- Manohar V., et al. (2001). Antifungal activities of origanum oil against *Candida albicans*. *Mol Cell Biochem*, 228 (1-2):111-7
- Natural Database www.naturaldatabase.com Oregano monograph (Accessed May 2013)
- Nostro, A. et al. (2004). Susceptibility of methicillin-resistant staphylococci to oregano essential oil, carvacrol and thymol. *FEMS Microbiol Lett*, 230(2):191-5.
- Osakabe N., et al. (2004) Anti-inflammatory and anti-allergy effects of rosmarinic acid (RA); inhibition of seasonal allergic rhinoconjunctivitis (SAR) and its mechanism. *Biofactors*, 21 (1-4):127-131.
- Ozdemir B., et al. (2008). Effects of Origanum onites on endothelial function and serum biochemical markers in hyperlipidaemic patients. *J Int Med Res*, 36(6):1326-34.
- Zeytinoglu H., Incesu Z., Baser K.H. (2003) Inhibition of DNA synthesis by carvacrol in mouse myoblast cells bearing a human N-RAS oncogene. *Phytomedicine*, 10(4):292-9.