



CERTIFIED ORGANIC OIL OF OREGANO

Immune-enhancing, antimicrobial, and antioxidant

OIL OF OREGANO FOR YOUR HEALTH

Hippocrates, the father of scientific medicine, used oregano to prevent infections and to treat stomach and respiratory ailments. He advised, "Let food be your medicine." This culinary herb, central to Mediterranean cuisine, has been receiving renewed scientific interest. Hundreds of studies have identified its active ingredients and confirmed their powerful synergistic effect in killing bacteria. Though Hippocrates was not aware of bacteria as the cause of infections, the healing power of the oregano's volatile aromatic oils were well-known in antiquity.

Many plants are called oregano, and the one sold for cooking in North America is usually a species from Mexico. But the oregano species with the proven healing properties is *Origanum vulgare* and grows wild in the mountains of Greece, Crete, Turkey and the Himalayas.

Recent research has also discovered that oil of oregano has other powerful healing qualities. It is effective against yeast, parasites, and even the so-called "superbugs." It is a potent anti-inflammatory and antioxidant, and can reduce the risk of several degenerative diseases. The safety and effectiveness of oregano oil has been demonstrated by thousands of years of traditional use as a herbal remedy. Now, modern science confirms oil of oregano as an important natural health supplement.

HOW OIL OF OREGANO WORKS

The antibacterial effects of oregano oil are likely due to its ability to penetrate cell membranes and disrupt their integrity. Studies have shown that if bacteria cells come into contact with oregano oil – or one of its active ingredients, carvacrol or thymol – then fluids leak out of the bacteria. The pH inside the bacteria also becomes more acidic, impairing metabolism and replication (Lambert). These findings are consistent with electron microscope observations that reveal damage to the cell membranes of bacteria exposed to oil of oregano.

PURE, NATURAL, AND ORGANIC

Natural Factors Certified Organic Oil of Oregano is derived from the wild-crafted Mediterranean oregano species *Origanum vulgare*. Carvacrol is the predominant phenol and most important component of wild oregano. The oil from *Origanum vulgare* has the highest naturally-occurring carvacrol content, at 80%. Brands that contain significantly more than 80% carvacrol are "spiked", which may disturb the delicate synergistic balance of the individual phytochemicals as found in nature. By using the whole herb, rather than just some of its individual compounds, that synergy is maintained and potency greatly enhanced. The oregano oil in Natural Factors Certified Organic Oil of Oregano

is guaranteed to contain 80% carvacrol. The oil is extracted from the hand-picked leaves using gentle steam distillation, ensuring that the oil is chemical free. Research shows that steam temperatures do not diminish the effectiveness of oregano oil.

Pure oregano oil is too potent to be used full strength, so it is blended in a one-to-four ratio with olive oil. This is the ideal ratio for enabling the body to assimilate the oregano oil. Organic, cold-pressed, extra-virgin olive oil is used to ensure the product is 100% organic and free from chemical contaminants.

THE BENEFITS OF OIL OF OREGANO

Research has shown oil of oregano has the following beneficial characteristics:

- Antiseptic
- Antibacterial
- Antimicrobial
- Antifungal
- Antiparasitic
- Anti-inflammatory
- Antioxidant
- Antimutagenic and anticarcinogenic
- Analgesic (topical)

ANTIMICROBIAL, ANTIFUNGAL, AND ANTIPARASITIC

As more and more antibiotic drugs lose their effectiveness against life-threatening bacterial infections, research is showing the oil of *Origanum vulgare* has potent antimicrobial actions that can give our immune systems some needed reinforcement.

Many of oregano oil's active constituents, including carvacrol and thymol, are phenolic compounds. They are responsible for oregano's demonstrated ability to inhibit the growth of, or kill, many harmful microbes that infect humans. Several laboratory studies have shown oil of oregano to be effective against a range of problematic food-borne pathogens, including *Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella typhimurium*, and *Staphylococcus aureus* (Dadalioglu).

Studies have also found oil of oregano to be effective against a variety of fungi and yeasts including *Candida albicans*, which becomes an infectious agent if there is a change in the body environment that allows it to grow out of control. *In vitro* research has shown that oregano oil completely stopped the growth of *C. albicans* in culture, inhibiting both its germination and its mycelial growth. This effect was dose-dependent, meaning that the oregano oil was responsible for the effect (Manohar).

Significantly, researchers with the University of West England recently found that oil of oregano is effective against the drug-resistant "superbugs" found in hospitals. They studied *Origanum vulgare* growing in the Himalayas and found its potent antibacterial properties were more effective than 18 antibiotic drugs. It killed the methicillin-resistant superbug *Staphylococcus aureus* even when diluted 1000:1 (Paddock).

A human clinical trial also found daily supplementation with 600 mg of emulsified oil of oregano completely eliminated a variety of intestinal parasites for most patients during a six-week treatment regime (Force).

ANTI-INFLAMMATORY

Inflammation is part of the body's normal response to injury or infection. But sometimes inflammation can be excessive or unnecessary, and actually causes a disorder, such as certain cardiac conditions or seasonal allergies.

Oil of oregano is rich in the polyphenol rosmarinic acid, which has been shown to have an anti-inflammatory action. In a human clinical trial, patients with seasonal allergies were treated daily with rosmarinic acid or a placebo for 21 days. Compared to placebo, supplementation with rosmarinic acid resulted in a significant improvement in symptoms. The researchers also investigated how the rosmarinic acid worked. They took nasal swabs from the patients and discovered the rosmarinic acid had decreased the number of neutrophils (the white blood cells that form the bulk of inflammatory congestion) and eosinophils, another type of white blood cell that produces harmful reactive oxygen species, including free radicals (Osakabe).

These natural anti-inflammatory effects of the active compounds in oil of oregano may be the basis for its historical use as a herbal remedy for inflammatory disorders, such as coughs, asthma, croup, bronchitis, rheumatoid arthritis, dyspepsia, and dysmenorrhea. Anti-inflammatory action may also underlie the use of oregano as a herbal remedy for acne, insect and spider bites, canker sores, gum disease, toothaches, psoriasis, seborrhea, rosacea, and muscle pain.

ANTIOXIDANT

Oil of oregano also provides effective antioxidant protection against cellular damage caused by free radicals. Free radicals oxidize some of the molecules that make up the body's cells. This oxidation is a process similar to rusting and it damages the cells. Free radicals are a factor in inflammation and degenerative diseases, including arthritis, cancer, and heart disease.

Oil of oregano contains powerful antioxidants such as rosmarinic acid and quercetin. A 2001 study of various medicinal herbs found that oil of oregano has an oxygen radical absorption capacity (ORAC) four times greater than blueberries, and at least 12 times that of oranges and other fruits and vegetables. Oregano's ORAC value was higher than even vitamin E (Zheng). The ORAC test has become one of the standard methods to measure antioxidant properties in foods. The higher the ORAC value, the higher the concentration of antioxidants.

In an animal study, pre-treatment with rosmarinic acid before exposure to a carcinogenic chemical resulted in a reduction in reactive oxygen species that cause free radical damage (Osakabe). Laboratory tests showed the antioxidant compounds in oregano oil had a strong protective effect against the oxidation of LDL ("bad") cholesterol, a key factor in heart disease (Kulisic).

Some research has also found antimutagenic and anticarcinogenic effects of oil of oregano, suggesting it may be useful in the prevention and treatment of cancer (Arcila-Lozano).

DOSAGE

Four drops daily directly under the tongue, mixed with water, applied topically, or as directed by a health care practitioner. A sensation of warmth is normal. Do not apply to raw or broken skin.

SAFETY

Oil of oregano (*Origanum vulgare*) is generally well-tolerated. Gastrointestinal upset may occur if the recommended dose is exceeded. If topical use is excessive, skin irritation or rashes may occur. Avoid contact with the eyes, and flush immediately with water if eye contact occurs.

Pregnancy and lactation: Oil of oregano is not recommended during pregnancy or while breastfeeding.

Children: Children under two years of age should not use oil of oregano topically or internally. Internal use by children 2 to 13 years old should be guided by a health care practitioner.

Drug Interactions: As oil of oregano may contribute to blood thinning, consult a health care practitioner prior to use if you are taking blood-thinning medications, aspirin, or NSAIDs.

Contraindications: Use with caution if you are allergic to the lamiaceae family (including basil, sage, mint, hyssop, lavender, thyme, rosemary, and other herbs).

Used traditionally for thousands of years as a herbal remedy, the health benefits of oil of oregano are now supported by modern medical research. Oil of oregano can assist the immune system in combating an array of pathogenic microbes, improve inflammatory conditions, and reduce the risk of many degenerative diseases.

KEY REFERENCES

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