



NANOL™ is an advanced blend of essential oils, herbal extracts, and lipid compounds that can be used both orally and topically to support the skin and surrounding tissues. This proprietary blend readily penetrates the skin and soft tissue to support healthy immune function as well as assisting with detoxification and healing.

Whether taken orally or topically, NANOL is designed to naturally assist the immune system and natural regenerative processes.

Do not apply to open wounds.

**NANOL contains:**

Proprietary blend of herbal and botanical extracts in NANx suspension, including essential oils of:

- Coconut
- Oregano
- Cinnamon
- Neem
- Mint
- Cedar
- Geranium
- Lemongrass
- Clove
- Citronella
- Processed kelp
- Chrysanthemum
- Garlic extract

Other Ingredients: Glycerin

## Benefits

### Effective skin penetration

Coconut oil can be utilized as a skin permeability enhancer in topical drug formulations. As a natural oil containing high amounts of unsaturated fatty acids, it assists with significant skin penetration enhancement for drug compounds.

Coconut oil application is also shown to notably increase the skin's palmitic and stearic acid content. Coconut oil was among several oils that demonstrated the highest increase of linoleic and oleic fatty in the epidermis and upper dermis layer<sup>1</sup>.

### Immune system support

Oregano essential oil is demonstrated to harbor antimicrobial activity, as well as antiviral and antifungal properties. Oregano's main compounds are carvacrol and thymol, which are responsible for its antimicrobial and antioxidant activity. Ethnopharmacological data suggests that oregano oil is long known as the strongest natural antibiotic and has been used successfully in traditional medicine to relieve various infectious diseases<sup>2</sup>. Kelp is a seaweed rich in immune supporting nutrients including dietary fiber, omega-3 fatty acids, essential amino acids, and vitamins A, B, C, and E<sup>3</sup>. Tests demonstrate that kelp possesses immune stimulating, antioxidant, anticoagulant and antiviral properties<sup>4</sup>.

### Antimicrobial activity

Garlic's antimicrobial activity is more potent than other allium plants due to its many hydrophobic antimicrobial compounds, including allicin, ajoenes and diallyl polysulfides. Allicin is an important sulfur-containing compound with powerful antimicrobial activity against both Gram-positive and Gram-negative bacteria. It also inhibits the biofilm formation of bacteria, which is a common cause of antibacterial resistance<sup>5</sup>. Mint contains volatile oils which were shown to possess strong antimicrobial activities against 15 bacteria, 14 fungi and four yeast species.<sup>6</sup> Cedar has been evaluated as a safe and acceptable broad spectrum antimicrobial agent.

### Antioxidant capacity

Garlic contains natural antioxidants that can remove reactive oxygen species and reduce lipid peroxides and low-density lipoprotein oxidation. Garlic's content of allicin, diallyl sulfides, and other sulfur compounds also harbor many physiological effects and activities in various metabolic pathways.<sup>7</sup>

Cinnamon supplementation may be an adjuvant for reducing inflammation and oxidative stress levels in humans. Cinnamon supplementation resulted in a significant reduction of C-reactive protein, and several studies have confirmed cinnamon's benefits for cardiometabolic health.<sup>8</sup>

Oregano extracts have documented antioxidant and antimicrobial properties, and are shown to be effective scavengers of the free radicals that are generated by metabolic pathways in the body.<sup>9</sup>

### Stimulates healing

Scientific studies have validated the traditional claims of neem, and that it contains more than 300 complex compounds. Neem is known for its anti-inflammatory, antibacterial, antioxidant, antiviral, antifungal, and immunomodulatory activities which indicate its potential for treating various skin disorders<sup>10</sup>.

Lemongrass has demonstrated anti-inflammatory activity in human skin cells and studies indicate it is a therapeutic candidate for treating inflammatory conditions of the skin. Lemongrass essential oil elicited significant anti-allergic and anti-inflammatory effects in a mouse edema model<sup>11</sup>.

### Assists with skin disorders

Chrysanthemum is widely used as an anti-inflammatory agent in Asia and is shown to reduce interleukin (IL)-4 and IL-13 in human keratinocytes, which may make it an effective treatment for atopic dermatitis.<sup>12</sup>

Geranium essential oil may have antibacterial and antifungal activity when applied topically and has been used for neuropathic pain<sup>13</sup>.

Cedar has medicinal antibacterial properties and is used topically for treatment of some kinds of skin problems in Persian medicine. Topical cedar solution plus clindamycin 1% was found to be more effective and safe than placebo plus 1% clindamycin for the treatment of acne vulgaris<sup>14</sup>.

### Supports detoxification pathways

Chrysanthemum plays a key role in preventing hepatotoxicity by inhibiting oxidative stress and apoptosis via its activation of Nrf2 signaling. Nrf2 underpins phase II detoxification and antioxidant enzymes, which has led researchers to recommend chrysanthemum for protecting the liver.<sup>15</sup>

1 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6151382/>  
2 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8623404/>  
3 <https://pubmed.ncbi.nlm.nih.gov/22054935/>  
4 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8232781/>  
5 <https://www.spandidos-publications.com/10.3892/etm.2019.8388>  
6 <https://www.sciencedirect.com/science/article/abs/pii/S0308814606008466?via%3Dihub>  
7 <https://link.springer.com/article/10.1007/s10068-017-0246-4>  
8 <https://pubmed.ncbi.nlm.nih.gov/33066854/>  
9 <https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/oregano>  
10 <https://pubmed.ncbi.nlm.nih.gov/34961431/>  
11 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5801909/>  
12 <https://pubmed.ncbi.nlm.nih.gov/22454686/>  
13 <https://pubmed.ncbi.nlm.nih.gov/30000892/>  
14 <https://pubmed.ncbi.nlm.nih.gov/31760846/>  
15 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6475127/>

## Dosage

Topically: Massage into skin where needed.

Orally: Administer 3 sprays directly into the mouth 3 times per day

## Safety and side effects

NANOL has an excellent safety rating with no reported interactions from the supplement.

NANOL is not intended to replace any medication or procedures used to treat cancer, viral infections, or illnesses. Do not discontinue treatment or cancer medications without a doctor's permission.

Women who are pregnant, nursing, or any person who is immune-compromised should consult their physician before using this product. Certain medications may interact with individual ingredients – talk to your doctor if you take any medications.

### Disclaimer:

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- Information and statements contained have not been confirmed by additional studies.