

Monolaurin Plus



Clinical Applications

- Supports Normal, Healthy Immune Response*
- Improves Fatigue*
- May be Effective Against Biofilms *

Monolaurin Plus is an immune-supporting compound that, unlike conventional products used for this purpose, has not been shown to result in antibacterial resistance, nor to have adverse effects on beneficial intestinal flora (the "good bacteria"). Monolaurin Plus contains vitamin C for added immune benefit, and sunflower lecithin to enhance absorption of the monolaurin.

All Absolute Health Formulas Meet or Exceed cGMP Quality Standards

Discussion

Monolaurin Plus is an encapsulated formula of monolaurin (glycerol monolaurate), a potent virucidal and bactericidal agent with efficacy across an impressive array of pathogenic organisms and viruses. Monolaurin Plus is the mono-ester form of lauric acid, which is the predominant fatty acid in coconut and palm kernel oils and is also present in human breast milk (as 3.5-6.6 percent of total calories), where it is believed to be the main antiviral and antibacterial compound.¹ Additional benefits of Monolaurin Plus are that, unlike conventional antibiotics, it has not been shown to result in antibacterial resistance, nor to have adverse effects on beneficial intestinal flora. As such, in addition to acute therapeutic use it may also be used as a potential preventive measure during cold and flu season or taken on an ongoing basis by those susceptible to recurrent infection and illness.

Humans metabolize small amounts of monolaurin from lauric acid, but the amount is believed to be relatively low. Lauric acid itself is virucidal and bactericidal, but Monolaurin Plus has much greater activity and as a therapeutic intervention, it may be required in higher amounts than would be obtained from reasonable servings of coconut oil in the diet. Moreover, unlike Monolaurin Plus (as a monoglyceride), diglycerides and triglycerides are not effective against microorganisms.¹

Monolaurin Plus may be especially helpful for individuals plagued by chronic, recurrent stealth infections, such as those linked to Lyme disease and conditions involving chronic fatigue. Some typically difficult-to-treat infections may result from viruses that are encapsulated in such a way that they cloak themselves in parts of the infected individual's own cell membranes and are thus "hidden" from the immune system. Monolaurin Plus may be effective in such cases.

Mechanism and Targets of Action Monolaurin Plus is believed to inactivate lipid-coated viruses by binding to the lipid-protein viral envelope, thereby preventing it from attaching to and entering host cells, rendering infection and replication impossible. Evidence also suggests that Monolaurin Plus (among other monoglycerides and fatty acids) solubilizes the lipids and phospholipids in the viral envelope, causing disintegration of this protective envelope and killing the virus.^{1,2}

Additionally, as a lipid-based surfactant, Monolaurin Plus is effective against microbial biofilms, which are associated with a variety of clinical presentations, including periodontitis, otitis media, endocarditis, biliary tract infections, prostatitis, osteomyelitis, burn wound infections, surgical site infections, and device-related infections such as those associated with catheters, sutures, and stents.^{3,4} Biofilm-associated bacteria are typically less susceptible to antibiotic therapy than are free-living bacteria, possibly owing to the inability of some antibiotics to fully penetrate the biofilm and interact directly with bacteria. Researchers believe this is due to "the presence of occasional areas of lipid-containing matrix encasing some bacteria within the biofilm.

Lauric Acid and Monolaurin Coconut is one of the richest sources of special fats called medium-chain fatty acids (MCFAs, sometimes also called medium-chain triglycerides, or MCTs). Among these MCFAs is a unique type of fatty acid, *lauric acid*. Lauric acid is the most abundant individual fatty acid in coconut, and it is believed to be responsible for most of this food's health benefits. Human breast milk is also rich in lauric acid (about 3.5-6.6 percent of total calories), and some of the immune system supporting properties of breast milk may be due to the presence of lauric acid. This lipid matrix prevented comparatively small, ordinarily diffusible molecules from meeting the encased bacterial cells. Considering these findings, it is conceivable that antibiotics may be able to diffuse through the biofilm but not meet all bacterial cells throughout the biofilm. There may be areas in the biofilm that are shielded by a lipid hydrophobic barrier that prevents diffusion of antibiotics into these areas."³ As a surfactant capable of disrupting lipid-containing structures, monolaurin was shown to interfere with biofilm development by *Staphylococcus aureus* and *Enterococcus faecalis*. Notably, in the case of *S. aureus*, monolaurin was demonstrated to act synergistically with gentamicin and streptomycin (but not ampicillin or vancomycin).⁴ Monolaurin blocks the production of various bacterial exoproteins and virulence factors, such as protein A, alpha-hemolysin, β -lactamase, and toxic shock syndrome toxin 1 (TSST-1) in *Staphylococcus aureus*, most likely acting through the inhibition of signal transduction and by altering the structure or function of bacterial cell membranes.⁵⁻¹⁰ Monolaurin may be inserted into bacterial cell membranes "and subtly modify membrane structure to interfere with the conformational shifts in the structure of transmembrane proteins by which signals are projected through membranes. Alternatively, GML [monolaurin] may interfere with the normal placement of signaling proteins in the membrane."¹¹ Monolaurin has been shown to inactivate many pathogens, including herpes simplex virus and chlamydia trachomatis.¹² It is also effective against both gram-positive and gram-negative bacteria, as well as yeast, fungi, and protozoa, including candida albicans, several species of ringworm, and the giardia parasite.¹³⁻¹⁵

*These statements have not been evaluated by the Food and Drug Administration.
This product is not intended to diagnose, treat, cure, or prevent any disease.

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Monolaurin Plus



Supplement Facts

Serving Size 2 capsules
Servings Per Container 60

Amount Per Serving	% Daily Value	
Vitamin C (as Ascorbic Acid)	170 mg	189%
Monolaurin (as Glycerol Monolaurate)	1 g	*

*Daily Value not established.

Other Ingredients: Cellulose (capsule), dicalcium phosphate, sunflower lecithin, silicon dioxide, vegetable stearate.

Directions

As a dietary supplement, take 2 capsules per day with meals, or as directed by your health care practitioner.

Consult your healthcare practitioner prior to use. Individuals taking medication should discuss potential interactions with their healthcare practitioner.

Considerations

Consider using this product in conjunction with other systemic immune support products such as Berberine Plus and Immune Pro.



References

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