

PerioBiotic™ Silver



Probiotic Toothpaste with Purified Silver and CoQ10

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This information is provided as a medical and scientific educational resource for the use of physicians and other licensed health-care practitioners ("Practitioners"). This information is intended for Practitioners to use as a basis for determining whether to recommend these products to their patients. All recommendations regarding protocols, dosing, prescribing, and/or usage instructions should be tailored to the individual needs of the patient considering their medical history and concomitant therapies. This information is not intended for use by consumers.

PerioBiotic™ Silver is a probiotic toothpaste with purified silver and coenzyme Q10 (CoQ10). It features Dental-Lac™, which is a *Lactobacillus paracasei* (*L. paracasei*) probiotic that has been shown in research to help support oral microbial balance.¹⁻⁴ Similar to the role of probiotics in the gastrointestinal tract, beneficial flora of the mouth may help maintain dental and oral health.¹

PerioBiotic™ Silver also contains CoQ10, which may help support gum health and may promote a healthy response to oxidative stress.⁵ CoQ10 has been shown in studies to support gum health in response to age-related changes.⁵ This formula also contains purified silver that may support oral wellness.^{6,7}

This spearmint-flavored toothpaste contains no fluoride, sodium lauryl sulfate, or saccharin. It is also free of BPAs, parabens, synthetic colors, gluten, and synthetic sweeteners. Instead of using traditional harsh sulfates, this formula contains coco betaine, a coconut-sourced foaming and cleansing agent. PerioBiotic™ Silver may help maintain dental and oral health.^{6,7} It may also support oral microbial balance.^{6,7}

Formula Highlights¹⁻⁷

- Features Dental-Lac™, a probiotic that promotes oral microbial balance
- Purified silver may support oral wellness
- CoQ10 may support periodontal health and may promote a healthy response to oxidative stress
- Xylitol — shown to possess beneficial properties for dental health
- Coco betaine is sourced from coconuts instead of traditional sulfates for foaming and cleansing
- Does not contain fluoride, sodium lauryl sulfate, or saccharin
- Free from BPAs, parabens, synthetic colors, gluten, and synthetic sweeteners
- In two pleasant flavors, spearmint and lemon to help freshen breath.

Ingredient Highlights

Lactobacillus paracasei

PerioBiotic™ Silver features Dental-Lac™, which is an *L. paracasei* probiotic. Research indicates that functional similarities exist between gastrointestinal and oral microflora. Certain probiotics, including *L. paracasei*, have been shown in research to promote healthy oral microbial balance and may help disrupt biofilm formation in the oral cavity.¹ Improvements in certain clinical markers related to periodontitis have also been observed in studies involving certain probiotics related to oral health.¹

A review article explored the efficacy of the oral application of probiotics on apical periodontitis (AP). AP is characterized by pathogenic microbial invasion of dental pulp and involves an inflammatory response of periradicular tissue.¹ It has been associated with certain systemic pathologies related to cardiovascular and metabolic health.¹

In clinical studies, the application of *L. paracasei* was shown to significantly reduce gingival inflammation. Applications of *L. paracasei* have also been shown to have activity supporting dental structural health.¹ A randomized, placebo-controlled clinical trial assessed the efficacy of milk powder with *L. paracasei* on the population of certain pathogenic bacteria, including *S. mutans*. There were 40 children who participated in this 6-month long study. In the probiotic treatment arm, populations of total *Streptococci* and *S. mutans* were significantly lower and salivary immunoglobulin A was higher compared to the placebo group.²

A comparison study was conducted with the prior formulation of PerioBiotic™ probiotic toothpaste, still containing *L. paracasei*. Study subjects brushed twice daily for 2 weeks. PerioBiotic™ was shown to significantly decrease populations of *S. mutans* as compared to other toothpaste options available on the market.³ The efficacy of the prior formulation of PerioBiotic™ was also assessed in a pilot study. PerioBiotic™ was shown to reduce *S. mutans* load up to 90 minutes after brushing.⁴

Benefits^{6,7}

- Supports oral microbial balance
- Helps promote healthy teeth
- Supports gum health

Lemon Flavor

Ingredients: Glycerin, Water, Hydrated Silica, Calcium Carbonate, Coco-Betaine, Cellulose Gum, Xylitol, Xanthan Gum, Rebaudioside A, *Mentha spicata* (Spearmint) Leaf Oil, Menthol, *Quillaja saponaria* Extract, Sodium Bicarbonate, Maltodextrin, Ubiquinone, DentalLac™ (*Lactobacillus Paracasei*), *Vitis vinifera* (Grape) Seed Extract, Hydrolyzed *Gardenia florida* Extract, Purified Silver.

Spearmint Flavor

Ingredients: Glycerin, Water, Hydrated Silica, Calcium Carbonate, Coco-Betaine, Cellulose Gum, Xylitol, Xanthan Gum, Flavor, Rebaudioside A, *Quillaja saponaria* Extract, Sodium Bicarbonate, Maltodextrin, Ubiquinone, *Lactobacillus paracasei* (Dental-Lac™), *Vitis vinifera* (Grape) Seed Extract, *Bixa orellana* Seed Extract (GG-Gold®), Purified Silver.

CoQ10

Periodontal disease affects approximately 90% of individuals older than 65 years of age and more than half of young adults.⁵ CoQ10, otherwise known as ubiquinone, supports cellular health through membrane stabilization, free radical scavenging, and stabilization of calcium-dependent channels. It also plays a critical role in cellular respiration and adenosine triphosphate (ATP) generation.⁵ Certain deficiencies in CoQ10 have been linked to periodontal disease.⁵ Increased concentrations of CoQ10 have been reported in studies to help suppress periodontal inflammation in the presence of diseased gingiva.⁵

A 4-week randomized, controlled clinical trial assessed the efficacy of the application of a gel containing CoQ10 on individuals with periodontal disease. Objective parameters were collected at weeks 2 and 4. Study results showed significant improvement at week 4 in plaque index, gingival index, and gingival bleeding.⁶

Additional Ingredients

PerioBiotic™ Silver toothpaste contains purified silver, which has been shown in studies to help inhibit the adhesion of *S. mutans* and may help prevent caries.⁶ Silver-containing agents have been shown to influence the integrity of collagen fibrils, which are the major structural component of dentin. The collagen matrix within dentin can influence mineral dispersion and deposition. In laboratory studies, silver-containing agents have been shown to contribute to intrafibrillar remineralization.⁷

PerioBiotic™ Silver also contains grape seed extract (GSE), which has pro-anthocyanidins. The pro-anthocyanidins are believed to support collagen-based tissues.⁸ In addition, GSE may also promote dental structure. Oral applications of GSE were shown to promote collagen-matrix preservation and helped attenuate degradation of enamel surfaces.⁹

Recommended Use: Apply PerioBiotic™ Silver toothpaste onto a soft bristle toothbrush. Brush thoroughly after meals for at least 1 minute. Spit out the excess solution, and for maximum benefits, do not rinse to allow for longer contact of the ingredients to the teeth and gums.

For a list of references cited in this document, please visit:

<https://www.designsforhealth.com/api/library-assets/literature-reference---periobiotic-silver-tech-sheet-references>

Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Healthcare practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage.

Dental-Lac™ is a trademark of Genmont Biotech Inc.

GG-Gold® is a registered trademark of American River Nutrition, LLC and patent protected, including pending and issued patents (US Patent 7,989,006).

To contact Designs for Health, please call us at (860) 623-6314, or visit us on the web at www.designsforhealth.com.