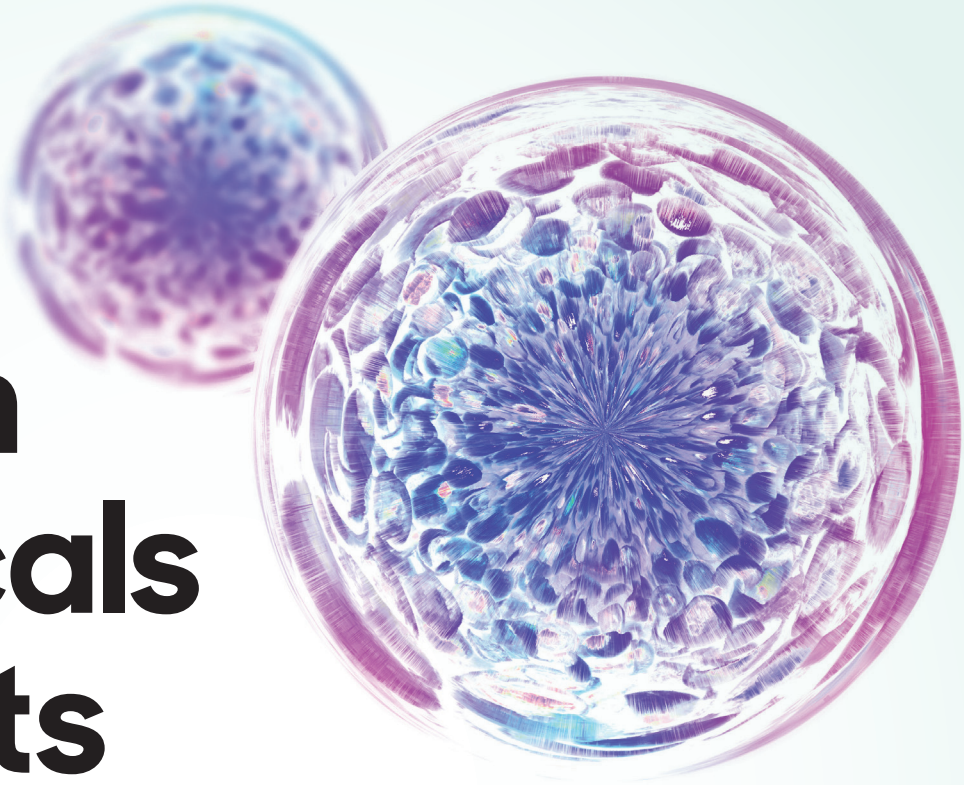
Biocidin Botanicals

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Biocidin Botanicals supports your microbiome



FUZZY TEETH ARE TELLING YOU SOMETHING

THAT'S WHY YOU SHOULD START WITH YOUR MOUTH

You know how your teeth feel after you've visited your dental hygienist? Smooth and clean—even slick? It feels great! What if you could maintain that level of "clean" until your next appointment with your hygienist?

A new natural oral care system on the market could help you do just that—Dentalcidin Oral Microbiome Toothpaste and its companion oral rinse, Dentalcidin LS. Both are from Biocidin Botanicals, a California-based botanical supplements company.

Skeptical? That's understandable.

The growing demand for natural and fluoride-free toothpaste means new oral care products are regularly debuting on the natural products scene.

But a couple of things set the Dentalcidin Oral Care System apart. >>

THE KEY INGREDIENT IS ALSO IN THEIR NAME: BIOCIDIN

Biocidin Botanicals is no newcomer to the botanical supplements scene. They've been around since 1989 and are a trusted industry leader.

Dentalcidin toothpaste and oral rinse are powered by the company's signature formula, Biocidin, a uniquely potent blend of 18 botanical extracts and essential oils.

Those botanicals are efficient when it comes to removing plaque, an oral biofilm and the source of that "fuzzy teeth" feeling most people eventually have between teeth cleanings. Pilot research conducted by Binghamton University shows Biocidin significantly reduces the viability of germs and their associated biofilms (plaque).

And while the two-step Dentalcidin Oral Care System is new, the toothpaste and oral rinse are not. In 2022, the company reformulated the toothpaste to be 100% plant-based, switched to 100% recyclable packaging and updated the taste.

Their clinical team also determined the greatest benefit for customers was for the products to be used together. Thus, the two-step system was born.



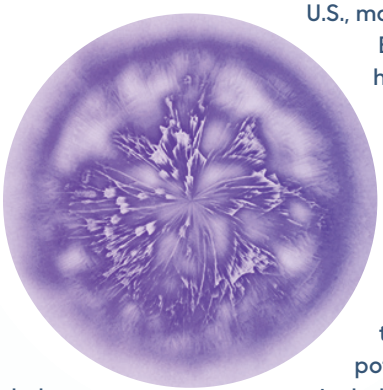
THAT FUZZ IN YOUR MOUTH IS MADE OF BIOFILM!

Dental plaque is an example of a common biofilm that most people experience. That slightly fuzzy feeling on the surface of the teeth is an indicator of a buildup of microorganisms that have formed a biofilm.

Biofilms are hideouts for:

- Bacteria
- Yeasts
- Fungi
- Parasites

In addition to forming on teeth, biofilms also form on the skin, on mucous membranes throughout the body, and on implanted medical devices. They can develop rapidly—often in less than an hour.



WHEN STAYING POWER ISN'T A GOOD THING

So, what's the problem with biofilms? The National Institutes of Health (NIH) recently revealed that 80% of chronic infections are associated with biofilm formation. Another problem? They're challenging to eradicate. Biofilm bacteria can resist up to 5,000 times the antibiotic concentration typically needed to resolve an infection.

On the teeth, plaque biofilm hardens into a microscopic, honeycomb-like structure that won't go away on its own. If left alone, plaque biofilm can lead to inflammation and degradation of gum tissue and supporting bone—potentially leading to cavities, gingivitis and periodontitis. In fact, periodontal issues afflict 50% of the adult population in the U.S., making targeted solutions imperative!

Beyond the oral cavity, research indicates that harmful microorganisms from the mouth can spread throughout the body. Oral bacteria have been found in arterial plaque (e.g., coronary, carotid) and cerebral plaque (amyloid), making it clear that oral microbes do not stay confined to the mouth.

Clearly, fuzzy teeth are the least of your concerns when it comes to plaque! Apart from the trouble it can create in your mouth, it can potentially cause serious systemic health concerns, including cognitive, respiratory, joint, cardiovascular and GI issues.

Biofilms in other parts of the body are equally challenging to remove. They can lead to an ongoing cycle of commonly recurring health concerns, such as tonsillitis, sinusitis, ear infections, urinary tract infections and GI issues.

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BIOCIDIN BOTANICALS: PIONEERS IN MICROBIOME HEALTH

The term "microbiome"—referring to the activities of microorganisms that live in a particular environment—was used for the first time in 1988 in a published scientific compilation entitled "Fungi in Biological Control Systems." Nobel Laureate and microbiologist Joshua Lederberg helped usher it into the scientific lexicon in 2001.

Researchers kept pace, as seen in a rapidly expanding number of studies about the gut microbiome and, later, the oral microbiome. A number that continues to grow as results point to the connection between microbiome health and so many other aspects of overall wellness.

On the scene from the very beginning was Biocidin Botanicals, founded in 1989, with their uniquely powerful botanical blend clinically shown to support microbiome balance.

"We understand the importance of health at the microbial level, particularly in the gut and oral microbiomes," says Rachel Fresco, Biocidin Botanicals Founder and Formulator.

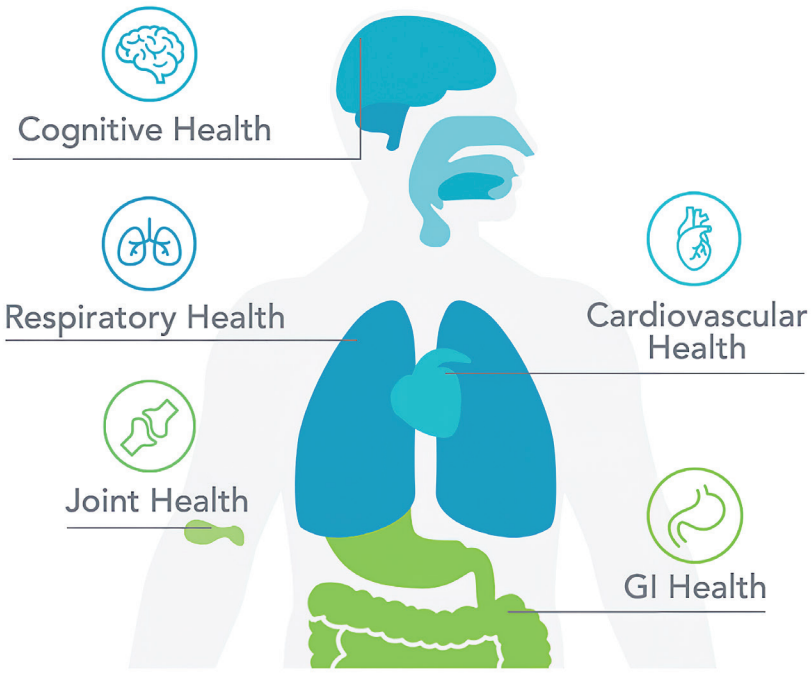
The company boasts a strong clinical team made up of naturopathic doctors, nutritionists, registered dietitians and other integrative practitioners. Decades of combined experience help them observe emerging patterns, identify root causes of illness and develop effective formulations to support microbiome health.



Healthcare practitioners have successfully utilized these evidence-based products for over three decades to help thousands of patients support their health.

"Our mission is to empower people to support their health in the face of today's complex challenges," Fresco says. "We plan to continue to lead the way in functional medicine in the area of microbiome support through our plant-powered products."

Whole-Body Health Begins in the Mouth



It's all connected!

THE ORAL HEALTH SUPPORT YOU DIDN'T EVEN KNOW YOU NEEDED

Beyond busting biofilms, the products have another unique benefit—they support oral microbiome balance.

Unfamiliar with the term oral microbiome? It's not surprising. Only in recent years have researchers begun to understand this collection of both harmful and helpful microorganisms in the mouth and how they set the stage for health throughout the body.

When you think about it, it makes sense. We swallow saliva all day long. What's growing in our mouths will soon be in our gut microbiome.

And if you aren't familiar with that term, it's a great one to understand. Because the health of our gut microbiome—the collection of harmful and helpful microorganisms in our GI system—is also vital to overall health.

"What's growing in our mouths will soon be in our gut microbiome."

INDUSTRY PROS SHARE THEIR TAKE ON DENTALCIDIN

Even before the recent updates, some dental health practitioners were already sold on Dentalcidin toothpaste and oral rinse. Offering them as a two-step system bolstered confidence in the products' oral health benefits.

Dr. Ariana Ebrahimian, part of a family-owned functional dentistry practice on the Central Coast of California, says, "As a functional dentist, I believe that a healthy mouth is essential to overall health. I highly recommend Biocidin Botanicals' Dentalcidin Oral Care System to my patients. The botanical blend is incredibly effective at busting up harmful biofilms in the mouth and rebalancing the oral microbiome without the harsh side effects of chemicals." She adds, "I use it myself and have for years."

Barbara Tritz (also known as "The Queen of Dental Hygiene") is a registered dental hygienist. She has performed in-office research on Dentalcidin LS using phase-contrast microscopy. After applying a drop of Dentalcidin LS to a plaque sample, she was pleased it neutralized the plaque bacteria. "I love recommending these high-quality products to my patients," she says. "I know they are safe, gentle and very effective in helping my patients achieve their goal of a healthy mouth."

Biocidin Botanicals Founder and Formulator, Rachel Fresco, says she loves that the botanicals in Biocidin are being applied to things people use every day, like toothpaste and oral rinse.

"We're making an impact," she says. "Dentists and hygienists are so excited to see the improved outcomes in their patients, including a reduction in plaque and improved gum health. I think that's something to smile about."



Dr. Ariana Ebrahimian
Functional Dentist

Two-Step Dentaceutical® Solution



ORAL MICROBIOME BALANCE

Supports oral microbiome balance for whole-body health*

ANTIOXIDANT + TISSUE-SOOTHING

Antioxidant and tissue-soothing activity.* Suitable for sensitive teeth

REMOVES PLAQUE + SMOOTH & CLEAN

Removes plaque, whitens, and keeps teeth smooth and clean all day

DEEP PERIODONTAL ACTIVITY

Utilizes liposomal technology for deeper penetration in the periodontal area*

WHY DO THESE PRODUCTS WORK? RESEARCH HOLDS THE ANSWER.

How does the Dentalcidin system live up to its promises?

The key is the broad-spectrum activity of Biocidin. Substantiated by clinical trials, case studies, and ongoing research, Biocidin has been shown to clear away harmful microorganisms while selectively enhancing beneficial organisms. This activity is in addition to its biofilm-busting properties.

Thanks to the combination of these 18 botanicals, along with other researched nutrients, Dentalcidin Toothpaste:

- gently and effectively cleans and whitens teeth
- freshens breath
- assists in removing oral biofilm plaque
- supports oral microbiome balance for whole-body health

Dentalcidin LS Oral Rinse contains the powerful liposomal form of Biocidin, shown to achieve 74% higher transcellular absorption than Biocidin Liquid. That means that along with dealing another blow to biofilms, the oral rinse provides deeper activity in the periodontal area. CoQ10, quercetin, clove, and myrrh add support for gum and gingival health.

Both products do not contain fluoride, which is good news for the growing global market clamoring for fluoride-free oral care products.



Biocidin Botanicals

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A TWO-STEP SOLUTION FOR ORAL HEALTH AND BEYOND

The Dentalcidin Oral Care System consists of two simple steps but has lasting, beneficial impacts on overall health.

More than just toothpaste and mouthwash, this unique two-step system is a Dentaceutical® solution—impacting the health of teeth and gums and ultimately supporting whole-body health.

Dentalcidin Oral Microbiome Toothpaste is a professional-strength, fluoride-free formulation that tackles plaque, whitens teeth and freshens breath.

Dentalcidin Liposomal Rinse utilizes liposomal technology to provide deeper support for periodontal and gingival health.

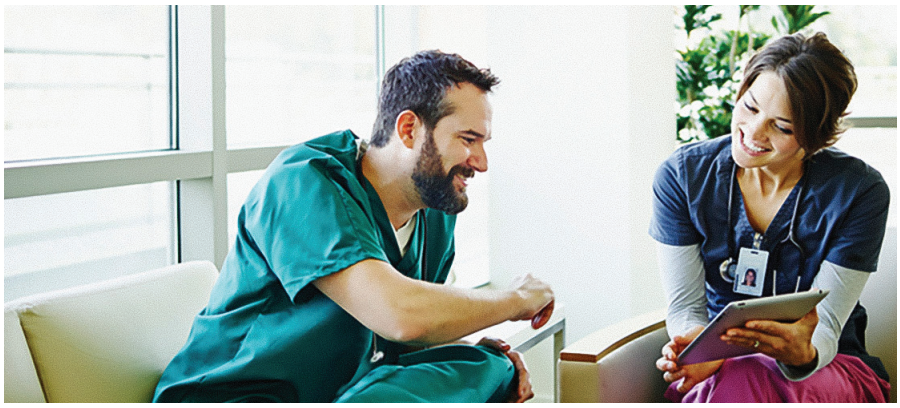
Both are 100% plant-based with a refreshing natural mint flavor.

STEP 1 | BRUSH WITH

- Dentalcidin Oral Microbiome Toothpaste
- Brush with Dentalcidin 2-3 times daily

STEP 2 | RINSE WITH

- Dentalcidin LS Liposomal Rinse
- Swish with 2 pumps for 1-2 minutes, then spit.
- Use 2-3 times daily after brushing and flossing.



GUT MICROBIOME IMBALANCE VS. BALANCE

When the gut microbiome is out of balance, and digestive and GI issues are present, unhealthy immune responses happen repeatedly. Immune cells are unable to properly discern what to react to. This causes the immune system to be in a constant state of "on," resulting in cycles of chronic inflammation that can cause:

- Food allergies
- Joint pain
- Brain fog
- Mood disorders
- Autoimmune issues

Alternatively, when the gut microbiome is balanced, strong epithelial cells work together as a semi-permeable barrier to shield the inside of your body from the invasion of these harmful microorganisms. Dysbiosis and the break-down of this gut barrier can be mitigated by supporting a healthy gut. What are some things that contribute to microbiome imbalance?

- Exposure to toxins, pathogens, and dietary allergens
- Overuse of antibiotics and some prescription drugs
- Chronic stress
- Unhealthy diet
- Sedentary lifestyle

THE POWER OF A SMILE

Smiling. It's what we do at the most important moments of our lives. When we welcome a child to the world, cross the finish line, greet the ones we love.

So much comes wrapped up in a smile. Happiness, affection, joy, optimism, confidence.

Smiles are contagious. They welcome us. They affirm.

And while we love to call out "Smile!" and capture them forever in images, there's a lot more to a smile than meets the eye.

Biocidin Botanicals understands. That's why the botanical supplements leader created one-of-a-kind products to care for smiles—and everything behind them.

The Dentalcidin Oral Care System taps into the dynamic spirit and science of botanicals. Products with a systemic reach, powered by the company's signature Biocidin® formula.

Foundational oral care that results in whole-body health.

Now that's something to smile about!



THE BIOCIDIN BACKSTORY: HOW IT ALL BEGAN



So how did Biocidin—the uniquely powerful botanical blend in the Dentalcidin Oral Care System—come to be?

It was the 1980s. Rachel Fresco, an herbalist and licensed acupuncturist, had watched her parents in their family pharmacy, where Rachel spent a lot of time growing up.

"Looking back to my childhood, I was fascinated with medicine, asking my dad endless questions while he worked as a pharmacist in his drugstore," recalls Fresco.

Her twin passions for botanicals and seeking solutions led her on an educational and vocational path that included studying Traditional Chinese Medicine as well as Western herbs and working at a Chinese herbal products company as an advisor to practitioners.



Rachel Fresco
Biocidin Botanicals Founder and Formulator

FORMULATING UNTIL IT'S RIGHT

Fresco was fascinated with botanicals that were effective as broad-spectrum agents. She was also alarmed at the rise in antibiotic-resistant bacteria, one of the most pressing health challenges of our time.

Those factors prompted her to begin developing various blends from plant extracts and essential oils, finally landing on the combination of the 18 botanicals in Biocidin.

Functional and integrative practitioners learned about it, and Rachel gladly shared the formulation. One of those doctors sent a sample to a well-known diagnostic lab. There, they discovered Biocidin's remarkable ability to effectively remove unwanted microorganisms.

"Doctors were getting great results, and the word spread," Fresco recalls. "I suddenly had to take the necessary steps to produce the formula and make it more widely available."

The year was 1989—before the word "microbiome" was even in use. More than 30 years later, Biocidin Botanicals offers Biocidin along with a carefully curated portfolio of targeted support products, including the Dentalcidin Oral Care System.

And while the company stands by its motto: "Whole-body health begins in the mouth," much of its work is focused on applying its botanical formulations in support of the gut microbiome, also a gateway to whole-body health.

"Doctors were getting great results, and the word spread."

Biocidin Botanicals

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BOTANICALS: WHERE SCIENCE AND TRADITION MEET

Botanicals have a unique place in the health and wellness industry. Long before anyone ever asked, "Did you remember to take your vitamins?" healers were turning to the natural world. They trusted nature's intelligence and used and refined botanical solutions for those who sought their help.

Biocidin Botanicals believes there is much to be learned from ancient and time-tested traditions – coupled with scientific validation.

"We rely on the holistic triad of energetics, botanical traditions and clinical science to develop, test and verify our formulations," explains Rachel Fresco, Biocidin Botanicals Founder and Formulator.

Biocidin, the company's signature formula, is an example of this philosophy in action. Each of the 18 plants offers multiple activities. When layered together, the result is a powerful synergy and an environment that allows the body's innate wisdom to flourish. Clinical trials, case studies and ongoing research confirm its efficacy.



Microbiome-balancing support is augmented by activity against biofilms and protective antioxidant action. The outcome is more than additive, it's exponential!

Jocelyn Strand, ND, Biocidin Botanicals' Director of Clinical Education and Research, reflects, "As an alternative practitioner in today's world, it can be easy to feel dismissed or even shamed for the use of therapeutics not yet accepted by the mainstream. Healers have relied upon alternative modalities (botanicals, acupuncture and manual therapies, to name a few) for as long as we have existed. That track record speaks for itself. Where research has been completed, the science bears out the clinical observation of their efficacy."

BIOCIDIN BOTANICALS HOSTS GUT SUMMIT

Collaboration is a core value of Biocidin Botanicals.

- **The company hosts monthly online talks with knowledgeable practitioners**
- **Eight industry experts and thought leaders serve on its Scientific Advisory Board**
- **Practitioners are encouraged to share case studies**
- **Trainings, roundtable discussions and other networking opportunities are available to practitioner partners**

In that same collaborative spirit, Biocidin Botanicals is hosting a free "Gut Summit" in June 2023. Members of the company's clinical team, as well as noted industry experts, will speak on topics that include:

- **How the oral and gut microbiomes are connected**
- **Pediatric gut health**
- **The role of nutrition in gut health**
- **The microbiome, mitochondria and exercise performance**

Practitioners are invited to attend on Wednesday, June 14. Everyone is welcome to attend on Thursday, June 15. More information is available on the company's website.



New Hope NETWORK

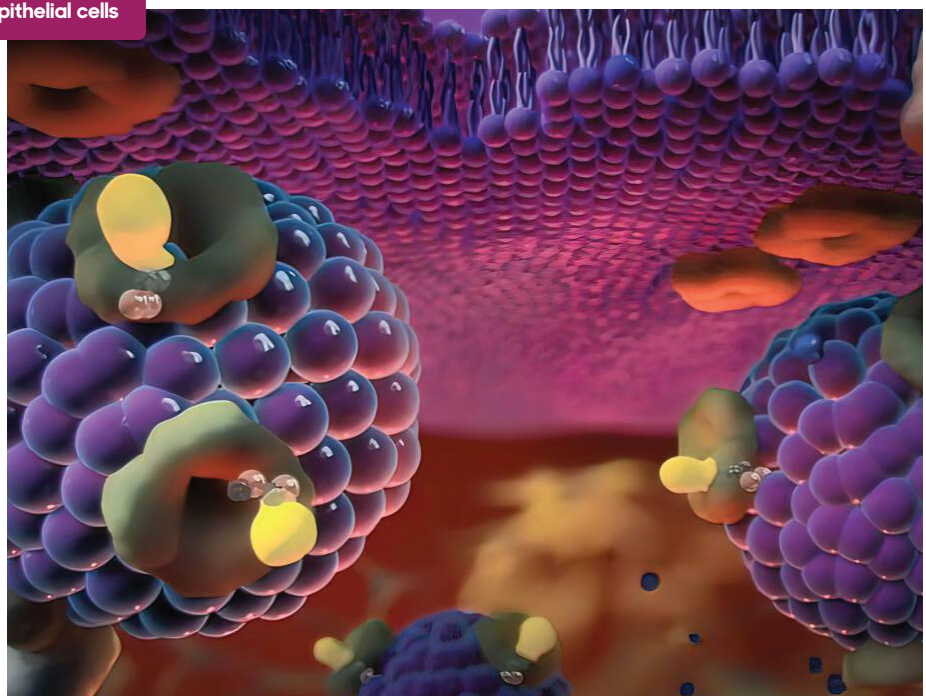
OTHER FRIENDS TO HEALTHY MICROBIAL BALANCE

The right diet, in addition to the powerful tools Biocidin Botanicals provides, can help maintain healthy microbial balance. Consider these nutritional tips:

- Aim for a diet low in simple sugars and carbohydrates.
- Fill up on prebiotic foods. These include apples, asparagus, bananas, cocoa, eggplant, garlic, honey, artichokes, legumes, onions, peas and whole grains.
- Eat the rainbow! Aim for four or five different colors on your plate at each meal to ensure you incorporate various phytonutrients.
- Focus on healing fats. Beyond olive and coconut oil, consider walnuts, cashews, nut butters, flax, hemp and chia seeds, wild-caught fish and avocados.
- Shop the perimeter. Remember that fresh, unprocessed food is generally located around the perimeter of most grocery stores.
- Eat in. The best meals are those you prepare yourself—not boxed dinners or overly processed foods in packages.
- Focus on lean, free-range, grass-fed meats.
- Maintain adequate protein intake at each meal. Pair it with fresh vegetables, fruits and whole, gluten-free grains.



Epithelial cells



ALAMY IMAGES

SO WHAT'S THE BIG DEAL ABOUT THE GUT MICROBIOME?

Heartburn, gas, bloating—everyone experiences them occasionally. But did you know 40% of American adults have a functional GI disorder? An unbalanced gut microbiome is often to blame.

But wait, there's more!

An unhealthy microbiome is also a risk factor for most chronic illnesses.

How does the gut microbiome become unbalanced? It all starts with microbes. Our bodies host billions of microbes—more numerous than the stars in the Milky Way—and their health undeniably influences ours.

Skin and mucosa (a membrane that lines various cavities in the body) are covered by a wide range of microorganisms—both harmful and helpful. This microbiota also colonizes the gastrointestinal (GI) tract, forming the gut microbiome.

The gut microbiome is in constant communication with your immune system as it fights foreign threats with the help of the gut barrier.

The gut barrier is a complex system made up of mucosa, epithelial cells and immune cells. The layers work in combination: Mucosa stops harmful organisms from meeting the intestinal epithelial cells. The epithelial cells, in turn, prevent microorganisms, toxins and undigested food from entering the bloodstream. In a healthy environment, immune cells discriminate between harmful and beneficial microorganisms and execute the ideal immune response.

"An unhealthy microbiome is also a risk factor for most chronic illnesses."

BOTANICAL SOLUTIONS FOR MICROBIOME HEALTH

During the 30-plus years Biocidin Botanicals has been in business, research on the gut and oral microbiome has exploded. Biocidin continues to stand the test of time and scientific scrutiny as a simple, natural solution for supporting this important aspect of health: microbiome balance.

The efficacy of Biocidin, a synergistic blend, starts with the 18 botanicals in the product:

- Bilberry Extract
- Noni Extract
- Milk Thistle
- Echinacea Purpurea Extract
- Echinacea Angustifolia Root
- Goldenseal
- Shiitake Extract
- White Willow Bark
- Garlic
- Grape Seed Extract
- Black Walnut (Hull and Leaf)
- Raspberry
- Fumitory Extract
- Gentian
- Tea Tree Oil
- Galbanum Oil
- Lavender Oil
- Oregano Oil

"These botanicals each have unique mechanisms of action that support optimal health," says Jocelyn Strand, ND, Director of Clinical Education and Research for Biocidin Botanicals. "Things like supporting microbial balance, disrupting biofilms, providing antioxidant activity and supporting a healthy inflammatory and immune response."

Strand explains that when the botanicals are combined, a layering effect takes place that results in a powerful synergy—a whole that is greater than the sum of its parts.

"When we turn to the natural world for its wisdom and support, we find a gift that works with our physiology to offer multiple benefits," Strand says. "Layer multiple botanicals with their individual activities, and the result is a deep, therapeutic effect."

READY TO TACKLE YOUR MICROBIOME BALANCE? HERE'S HOW!

"Simplifying the path to wellness." It's a mantra for Biocidin Botanicals.

The company's founder, Rachel Fresco, says, "We live fast-paced lives. People often feel overwhelmed. Add to that our modern health challenges, and you can feel like you don't know where to start. That's why we work to make the path to great health simple and clear."

Fresco points to her company's Bioclear Microbiome Detox Program as an example. It includes everything you need for a 30-day detox. The company calls it a "different kind of cleanse" because it focuses on restoring healthy microbial balance in the gut microbiome.

Some of the benefits of a balanced microbiome?

- Supports healthy digestion
- Plays a role in immune defense
- Supports the use of vitamins
- Helps hormonal balance
- Supports nutrient absorption

The Bioclear program works in three steps, using three products.



First, Biocidin, the company's signature broad-spectrum botanical blend, targets the entire GI tract, dismantling and removing irritants, unwanted microbes and biofilms while enhancing beneficial organisms. This step starts the process, allowing your body's innate restorative ability to go to work.

Second, G.I. Detox+, a gentle yet comprehensive binder and a best-selling Biocidin Botanicals product, intercepts the unwanted microbial byproducts and clears them through elimination in the stool. This step is essential for both microbial balance and for a more comfortable experience for you as you detox.

Finally, Proflora 4R, Biocidin Botanicals' spore-based probiotic, completes the trio by encouraging flourishing microbial diversity in your microbiome.

The Bioclear program includes a Lifestyle Guide with detailed instructions on using the program. It includes nutrition and lifestyle tips that, when followed, can supercharge your cleanse.

"We live in such a toxic world," Fresco said. "An annual or semi-annual detox is a proactive way to support your health. A healthy gut microbiome is vital to your overall health."

Biocidin Botanicals

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INNOVATION DRIVES PRODUCT DEVELOPMENT

When healthcare practitioners first began using the Biocidin botanical blend with their patients in the late '80s and early '90s, they got results! It worked to clear unwanted microorganisms. But that clearing was sometimes accompanied by discomfort as the body dealt with the byproducts of that process.

So the company developed a binder—G.I. Detox+, the first of its kind. Today, it's one of the best-selling products in the company's small, curated product portfolio. Besides the six products that contain Biocidin, the other products include a probiotic, an adaptogenic elixir and an olive-leaf formula.



THE "POWER OF 18" FUELS BIOCIDIN BOTANICALS' PRODUCT LINE

Six of the products in Biocidin Botanicals' curated product line contain Biocidin.

Biocidin Liquid: The flagship formulation. It targets the entire GI tract and helps maintain the delicate balance of microorganisms in the microbiome.

Biocidin Capsules deliver Biocidin in capsule form. **Biocidin LSF** uses a liposomal delivery system for enhanced absorption. **Biocidin TS** is an herbal throat spray that offers a soothing, protective boost for daily wellness.* The toothpaste and oral rinse in the **Dentalcidin Oral Care System** round out the Biocidin product line.

The genius of this botanical blend? It works with the gut and oral microbiomes to support health at the microbial level.

How does it do that?

- Clears away unwanted microbes*
- Spares beneficial microorganisms*
- Dismantles biofilms*
- Promotes healthy inflammatory response*
- Functions as an immune adaptogen*

Biocidin has stood the test of time and scientific scrutiny. Year after year, published and ongoing research confirms its efficacy.

Biocidin Botanicals offers other clinically effective, evidence-based botanicals that support microbial balance and GI health. Fresco and her team continue to expand their research and development efforts, using their expertise to produce more innovative, targeted support products to boost patient health and offer natural solutions that work.

With this strong and dedicated team, Biocidin Botanicals will continue to deliver on its mission to empower people to protect and support their health in the face of today's complex challenges.