myclinicianttoolbox.com

Enzyme Therapy

Biofilm

A biofilm is a community of microorganisms encased in an exopolymer matrix made primarily of polysaccharides and proteins. In a healthy GI tract, biofilms remain thin and balanced, supporting beneficial bacteria that promote digestion, nutrient absorption, and immune regulation. However, when the gut is compromised, biofilms can become overly thick and colonized by pathogenic organisms. These pathogenic biofilms are highly resistant to antibiotics and antimicrobials, and they often contribute to systemic dysfunction. When biofilms accumulate, the consequences reach far beyond digestion. They damage the mucosal lining, impair nutrient uptake, burden the immune system, and contribute to a cycle of auto-intoxication. Because biofilms can also act as reservoirs for heavy metals and environmental toxins, they place additional stress on liver detoxification pathways and systemic immune balance. Supporting digestive, microbiome, and liver health is therefore critical in both breaking down pathogenic biofilms and preventing their reformation. When digestive integrity, systemic enzyme activity, microbiome diversity, and liver detoxification are all supported together, the body is better equipped to break down harmful biofilms, clear stored toxins, and rebuild a healthy GI environment.*

- A broad-spectrum digestive formula rich in polysaccharidases, proteases, and lipase helps optimize digestion, reduce toxic load, and minimize substrates that pathogenic organisms thrive on. Supporting the digestive process also prevents downstream strain on the liver and immune system.*
- A targeted detoxification formula with therapeutic levels of N-acetyl cysteine, a precursor to the antioxidant glutathione, will provide extra support of breaking up biofilms, help inhibit new biofilmformation, and break down existing matrixes while supporting hepatic detox pathways and redox balance, essential for systemic resilience.*
- A gentle herbal formula following meals will help protect and repair the intestinal barrier, restoring thefirst line of defense against pathogens and toxins while improving immune tolerance.*
- Additional proteases taken between meals will help degrade the protein-polysaccharide matrix of biofilms, promote healthy circulation, reduce inflammation, and enhance detoxification capacity, supporting both gut and systemic health.*
- A targeted probiotic regimen supports immune modulation, fosters microbial balance, and helps re-establish a healthy biofilm structure.* Strains such as *Lactobacillus plantarum* are especially beneficial for maintaining a balanced microbial ecosystem. *(see reverse for probiotic regimen)*

TPP Digest	1 cap	with each meal
TPP Liver Support	1 cap	2 x day with food
TPP Gastro	1 cap	following each meal
TPP Protease	3 caps	3 x day between meals

Questions? 1-800-777-1474
email moreinfo@tecenzymes.com
www.transformationenzymes.com

TRANSFORMATION
THE GENESIS OF GOOD HEALTH™

***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.**

myclinicianstoolbox.com

Enzyme Therapy

Biofilm

Probiotic Regimen, Phase 1: Disrupt & Detox

TPP Probiotic — 1 cap — 2 x day, morning and bedtime

- Provides gentler, steady microbiome support and is less likely to cause "die-off" or bloating in sensitive patients.* Best use: For those with fragile GI systems, during earlier phases of gut healing, or when higher-dose probiotics are not tolerated.

Probiotic Regimen, Phase 2: Repopulate & Reinforce

TPP Probiotic 42.5 — 1 cap — at bedtime

- Provides a strong influx of beneficial strains to compete with pathogens and rebuild a healthy biofilm.* Best use: After initial disruption of biofilms (with remainder of protocol), to repopulate the gut lining. Also beneficial for general immune and digestive support.

Probiotic Regimen, Phase 3: Maintain & Modulate

TPP Transbiotic™ — 1 cap — at bedtime

- During or immediately after biofilm disruption, it is essential to reseed and recondition the gut so pathogens do not reclaim the open space. Best use: Use Transbiotic™ at this stage to provide pre- and postbiotic support, promote short-chain fatty acid (SCFA) production, enhance the mucosal barrier, and create a favorable environment for beneficial species to re-colonize.*

Additional support formulas you may want to consider for patients with pathogenic biofilms. Dosages are based on therapeutic recommendations and may be decreased for maintenance protocols.

TPP Protease IFC — 3 caps — 3 x day

- Biofilm is the source of chronic, subclinical inflammation due to the repeated stimulation of monocytes / macrophages. This is a unique formulation of highly active proteolytic enzymes and antioxidants is designed to help regulate inflammation anywhere on or in the body. Include this formula for those who need additional support due to severe inflammation.*

L-Drain — 1 dropper — 3 x day

- When biofilms are disrupted by enzymes, NAC, or antimicrobials, fragments of the polysaccharide-protein matrix, dead microbes, and stored toxins like heavy metals or mycotoxins are released. These byproducts are absorbed into the interstitial fluid and carried by the lymphatic system for clearance. If lymph flow is sluggish, these toxins can recirculate and worsen systemic inflammation ("die-off" or Herxheimer reactions). This formula contains a blend of herbs beneficial for relieving congestion of the interstitium, improving nutrient absorption, and enhancing immune function.*

Questions? 1-800-777-1474
email moreinfo@tecenzymes.com
www.transformationenzymes.com

TRANSFORMATION
THE GENESIS OF GOOD HEALTH™

***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.**