

# Mycotoxin and Mold Detoxification Support Protocol



Clinical Protocol to Support Normal Detoxification\*



Mold is produced by a type of fungus that can be found in many indoor environments, particularly those with higher humidity, higher moisture retention, and lower ventilation.<sup>1</sup> Mold spreads by the growth of fungi-producing spores. Certain spores can generate hyphae in the body, which may release proteases and other compounds that can affect the body's immune response and incite tissue destruction.<sup>1,2</sup>

The incidence of toxicity due to indoor mold exposure remains low for most healthy individuals, and only toxin-forming molds are capable of harming human bodies.<sup>1</sup> However, sensitivities can occur, and mold toxicities, such as invasive aspergillosis growth, are prevalent in the U.S., mostly due to the increased occurrence of immunosuppressive states.<sup>1,3</sup> Mold damage may be more prevalent in the homes of individuals with lower socioeconomic status — a demographic where education, remediation, and prevention may be necessary.<sup>1</sup>

The immune response to certain mold toxicities can be complex in which both the innate and adaptive branches of the immune system may be involved.<sup>2</sup> Common manifestations of mold toxicity include asthma, allergic respiratory illnesses, urticaria, eczema, and allergic rhinitis.<sup>1</sup> A localized or systemic inflammatory response may also occur alongside other pulmonary or nonspecific symptoms.<sup>2</sup> The incubation period in the body for certain molds, including some in the *Aspergillus* genus, can last for several months.<sup>2</sup>

Risk factors for mold toxicity include chronic obstructive pulmonary disease (COPD), cystic fibrosis, certain liver and blood diseases, and immunocompromised states.<sup>1,2</sup> Complications are more common in those with immunosuppressed circumstances, and these can involve the central nervous system and invasion into the cardiovascular system.<sup>1,3</sup>

Evidence suggests that certain nutrients and lifestyle factors may support antioxidative status, a healthy immune response, and the body's response to certain toxins. This clinical protocol is designed to support patients with mold toxicities and includes evidence-based lifestyle and dietary interventions known to support healthy detoxification, immune health, and a healthy inflammatory response.\*

## Diagnostic Biomarkers and Clinical Indicators of Mold Toxicity

Clinical evaluation includes a thorough history and physical examination. Depending on initial signs and symptoms, and the determination of environmental mold exposure, the evaluation may include (if warranted):<sup>1,2</sup>

- Specimen culture
- Diagnostic computed tomography
- Blood analysis is dependent on suspected mold toxicity and comorbidities and may include:
  - Complete blood count
  - Detection of mold-specific immunoglobulin E antibodies, such as enzyme-linked immunosorbent assay (ELISA) urine testing
  - Galactomannan assay
- Additional testing (if warranted)
  - Differential allergy diagnosis
  - Imaging to assess potential body system involvement

## Therapeutic Diet and Nutritional Considerations

- Address nutritional deficiencies and consider supplementation targeted to support the inflammatory response and immune health. Certain nutrients and phytochemicals have been shown to support immune health, antioxidative status, and a normal response to inflammation.<sup>4,5</sup> A Mediterranean diet may support the body's immune response.<sup>4,5</sup>
- Advise intake of probiotic-rich foods or supplementation with probiotics. Certain probiotics, such as *Saccharomyces boulardii*, may help support the inflammatory response, microbiome diversity, and gut health in the presence of certain mycotoxins.<sup>6-8</sup>

## Lifestyle Interventions

- Ensure sufficient ventilation in the home and minimize moisture levels in living spaces, and regularly maintain and clean air conditioning and ventilation systems. Some individuals may wish to consider home HEPA filtration.<sup>1</sup>
- Minimize common allergens (such as house dust and dust mites), particularly in sleeping areas, and remediate potential mold growth (such as that from potted plants or other moist surfaces).<sup>1</sup>
- Mold growth is commonly found in bathrooms where adequate ventilation should be maintained by removing wet towels, wiping and drying showers and bathtubs after use, and regularly washing shower curtains and allowing them to dry.<sup>1</sup>

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.



## Supplement Protocol

Primary Support:



### FloraMyces™

<b>Dose</b>	2 capsules daily
<b>Duration</b>	4 weeks; consider retesting after this time period to potentially continue treatment
<b>Formula Highlights</b>	FloraMyces™ is the nonpathogenic yeast, <i>Saccharomyces boulardii</i> , which possesses probiotic activity that supports gastrointestinal health and immune function.* This formula contains 500 mg or 10 billion viable cells at the time of manufacture of <i>S. boulardii</i> per serving. Benefits of <i>S. boulardii</i> may include protection of the digestive mucosa and normal production of secretory immunoglobulin A (IgA).* This strain has also been the most studied strain for its potential use in the prevention of antibiotic-associated diarrheas and as a general supplement for optimum gastrointestinal health.*

### Charcoal Plus Binder

<b>Dose</b>	2 softgels daily taken 2 hours before or after any medications or other supplements
<b>Duration</b>	4 weeks; consider retesting after this time period to potentially continue treatment
<b>Formula Highlights</b>	Charcoal Plus Binder is a synergistic blend of three research-backed ingredients that have a broad-spectrum binding capacity to help promote normal detoxification and toxin elimination.* It features targeted amounts of activated charcoal, purified zeolite standardized to contain 70% clinoptilolite, and organic chlorella to support the body's normal clearance of microbes, environmental toxins, heavy metals, and certain metabolites.*

### Liposomal Glutathione

<b>Dose</b>	2 pumps, 1 to 3 times per day
<b>Duration</b>	4 weeks; consider retesting after this time period to potentially continue treatment
<b>Formula Highlights</b>	Liposomal Glutathione provides 100 mg of reduced glutathione in each 1 mL serving (approximately 2 pumps). This product is formulated using liposomal technology, which results in superior delivery, absorption, and bioavailability.* Liposomal delivery bypasses proteolytic degradation in the gastrointestinal (GI) tract and is uniquely effective for reaching and interacting with target tissues.* Thus, this technology helps to overcome the absorption challenges typically faced with oral glutathione supplementation.* Glutathione is one of the most powerful antioxidants produced by the body. It helps protect cells against oxidative stress from dietary and environmental free radicals, and those resulting from normal metabolic processes.* Glutathione helps protect vulnerable DNA from damage, while also serving as a key factor in proper detoxification.*

### Detoxification Support Packets

<b>Dose</b>	2 packets per day
<b>Duration</b>	4 weeks; consider retesting after this time period to potentially continue treatment
<b>Formula Highlights</b>	Detoxification Support Packets provide synergistic support for normal detoxification. Each packet contains three unique formulas targeted to support antioxidative status, liver health, immune function, and a normal inflammatory response: Detox Antiox™, LV-GB Complex™, and Amino-D-Tox™.* Detox Antiox™ may help support phase II liver detoxification.* It also combats free radicals and helps support the body's detoxification of chemicals and heavy metals.* LV-GB Complex™ is a comprehensive formula designed to support bile flow for the normal processing and elimination of toxins through the specific combination of nutrients and herbs in this formula.* Amino-D-Tox™ helps provide nutritional support for phase II detoxification to help conjugate toxins and prepare them for safe elimination from the body.*

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

<https://www.designsforhealth.com/api/library-assets/literature-reference---mycotoxin-and-mold-detoxification-support-protocol-references>

Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Health-care 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. Any product containing botanical substances has the potential for causing individual sensitivities, appropriate monitoring, including liver function tests (LFT) is recommended.

For considerations regarding herb-drug and nutrient-drug interactions, please refer to reliable, evidence-based resources such as the Natural Medicine Database or Stargrove MB, Treasure J, McKee DL. *Herb, Nutrient, and Drug Interactions: Clinical Implications and Therapeutic Strategies*. St. Louis, MO: Mosby-Elsevier; 2008.

Well World™ and *Designs for Health* and logo are trademarks of Designs for Health, Inc. © 2024 Designs for Health, Inc. All rights reserved.

\*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.