Molds and Mycotoxins

Molds can produce many allergic reactions, like asthma, but also can sometimes produce toxins.

Some Mycotoxins That May Occur In Indoor Environments

Mycotoxin	Producing Organisms	Health Effects, Primarily from Ingestion, Injection, or Dermal Exposure
Aflatoxins	*Aspergillus flavus*, other *Aspergillus spp*.	Forms DNA adducts, hepatotoxic, carcinogenic, immunotoxic
Alternariol	*Alternaria spp.*	Cytotoxic, teratogenic
Citrinin	*Penicillium expansum*	Carcinogenic
Chaetoglobosins	*Chaetomium globosin*	Inhibits cell division
Cytochalasins	*Aspergillus clavatus*	Inhibits cell division
Epicladosporic acid	*Cladosporium spp.*	Immunosuppressive
Fumonisins	*Fusarium spp.*	Inhibits sphingolipid biosynthesis, neurotoxic, hepatotoxic, nephrotoxic, carcinogenic
Fumitremorgens	*Aspergillus fumigatus*	Tremorgenic
Gliotoxin	*Aspergillus fumigatus, Gliocladium*	Blocks membrane thiol groups, immunosuppressive, cytotoxic
Griscofulvins	*Memnoniella, P. griseofulvum, P. viridicatum*	Hepatotoxic, tumorigenic, teratogenic
Myciphenolic acid	*Penicillium brevicompactum*	Blocks inside monophosphate dehydrogenase, immunosuppressive
Ochratoxins	*Aspergillus ochraceus, Penicillium viridicatum*	Forms DNA adducts, inhibits protein synthesis (phenyalanyl-t-RNA synthetase), nephrotoxic, carcinogenic
Patulin	*Paecilomyces variatii, P. expansum*	Inhibits potassium uptake, possible carcinogen
Trichothecenes-satratoxins, verrucarins, roridins	*Stachybotrys chartarum, Fusarium spp., Myrothecium*	Inhibits protein and nucleic acid synthesis, immunosuppressive, hemotoxic, hemmorrhagic
Sporidesmin	*Pithomyces chartarum*	Hepatotoxic
Stachybotrylactams and lacones	*Stachybotrys chartarum*	Immunosuppressive
Sterigmatocystin	*Aspergillus versicolor, A. niger, A. nidulans*	Hepatotoxic, carcinogenic
Tenuazoic acid	*Alternaria alternate, Phoma soghina*	Nephrotoxic, hepatotoxic, hemmorrhagic
Verrucosidin	*Penicillium polonicum*	Neurotoxic

What You Can Do

Our intradermal skin testing technique can more sensitively detect mold allergy and indicate whether excess exposure to mold could be a problem. We believe the intradermal technique is more sensitive than conventional prick or scratch testing. We find blood RAST testing very insensitive. Call our office for an appointment today, or read our other available articles for additional information.