



# Mycotoxin's 101

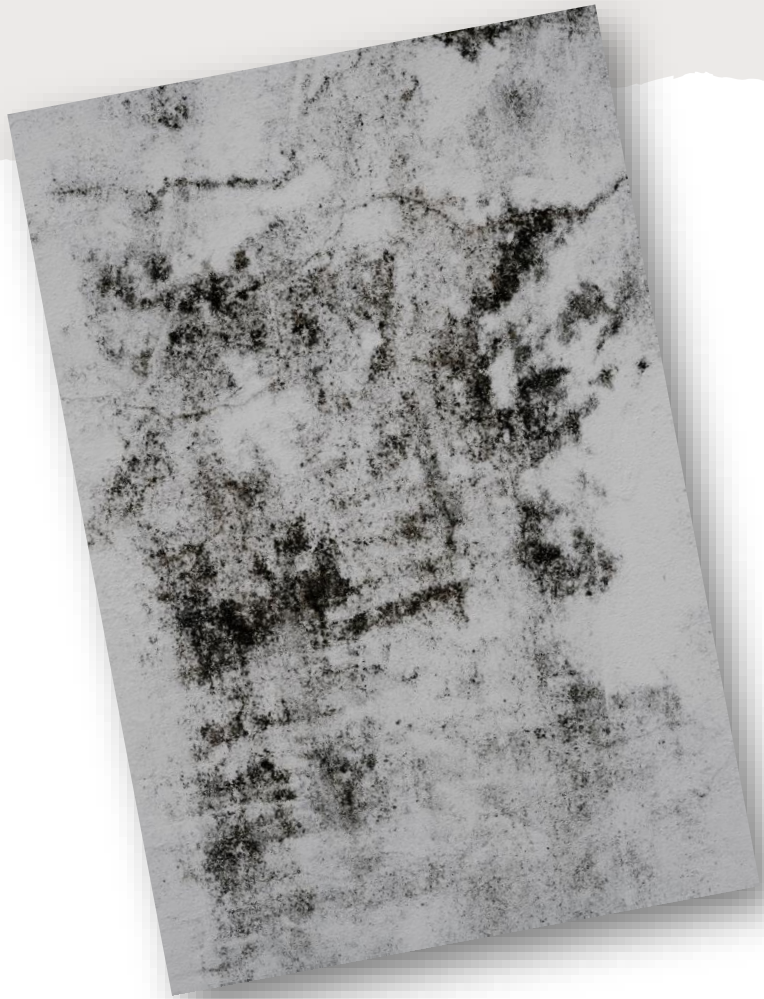
What are Mycotoxins?

# WHAT WE WILL COVER TODAY

- What are mycotoxins?
- Where are mycotoxins found?
- How do mycotoxins develop in the home?
- Why is it important to test your home for mold and mycotoxins?
- What sampling methods are available to test your home?
- Common symptoms of mycotoxin exposure?
- How can I get tested for mycotoxins?



# WHAT ARE MYCOTOXINS



- Mycotoxins are secondary metabolites produced by various mold species
- Mycotoxins have low molecular weight typically the size of .1 microns
  - Mold spore size ranges 1 to 20 microns
- Mycotoxins are poisonous substances thus the term “Toxic Mold”
- Because of this Mycotoxins can cause **disease and death** in human beings and animals.

# WHERE ARE MYCOTOXINS FOUND?

- Mycotoxins can be found most commonly in a variety of Foods; such as:
  - Grains, Wheat, Rice, Barley, Oats, Corn etc.
  - Coffee Beans
  - Nuts and Dried fruits
  - Spices
- Some medical providers believe that mycotoxins detected in the body are due to food sources.



# Continued



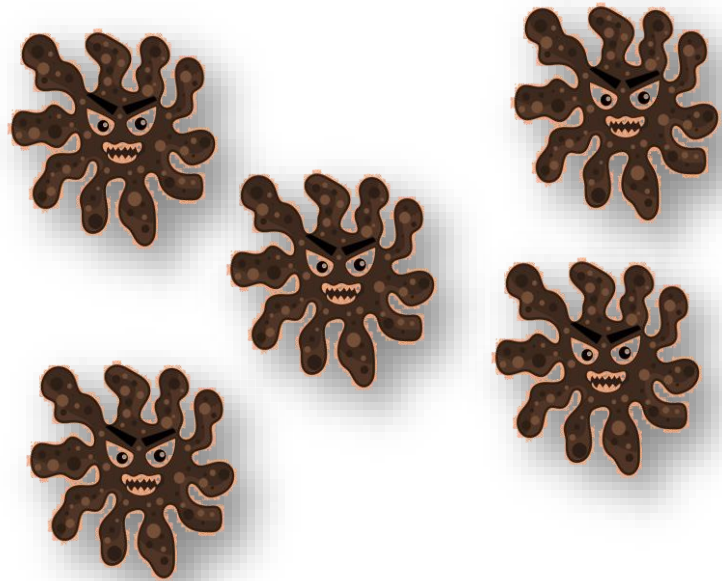
- Mycotoxins are also found in Water damage buildings
  - Homes
  - Office buildings
  - Schools
  - Government buildings
  - Hotels/Motels

# HOW DO MYCOTOXINS DEVELOP IN THE HOME

- Water damage building materials or generally humid and damp environments
- Mold growth occurs on surfaces with high cellulose content such as wood, fiberboard, gypsum board, paper, dust, and lint
- Various mold species produce mycotoxins to compete for food source or to protect themselves
- The higher the population of molds and /or microbes such as bacteria the more likely mycotoxins will be produced
- Molds excrete a toxic chemical that spreads across the colony onto the hyphae and spores
- During the mold's life cycle they disperse "spores" into the environment to reproduce themselves
- The mold spores and hyphae carry the mycotoxins
- Mycotoxins settle and harbor in the dust



# WHY IT'S IMPORTANT TO TEST YOUR HOME FOR MOLD & MYCOTOXINS?



- To validate the existence of mold in your home
- Helps establish a remediation strategy
- Enables your doctor to compare their medical laboratory findings to environmental laboratory findings in the home
- Individuals that have health issues

# WHAT SAMPLING METHODS ARE AVAILABLE TO TEST YOUR HOME?

- Collection of dust from various rooms throughout the home
  - Swab
    - Reference - Mini Class 2: [Surface samples](#)
  - A Swifter Cloth
    - Mycotoxins are collected in the same way as an ERMI using a swifter cloth.
    - Reference - Mini Class 3: [ERMI](#)





# Continued – Mycotoxin's Panel

Code	Test	Specimen	Value	Result	Not Present if less than	Equivocal if between	Present if greater or equal
D8501	Ochratoxin A	Dust	2.89600 ppb	Present	1.8 ppb	1.8-2.0 ppb	2.0 ppb
D8502	Aflatoxin Group: (B1, B2, G1, G2)	Dust	1.18600 ppb	Present	0.8 ppb	0.8-1.0 ppb	1.0 ppb
D8503	Trichothecene Group (Macrocyclic): Roridin A, Roridin E, Roridin H, Roridin L-2, Verrucarin A, Verrucarin J, Satratoxin G, Satratoxin H, Isosratoxin F	Dust	0.08000 ppb	Present	0.04 ppb	0.04-0.08 ppb	0.08 ppb
D8510	Gliotoxin Derivative	Dust	0.72700 ppb	Equivocal	0.5 ppb	0.5-1.0 ppb	1.0 ppb
D8512	Zearalenone	Dust	0.15200 ppb	Not Present	0.5 ppb	0.5-0.7 ppb	0.7 ppb

# Continued - EMMA

## Environmental Mold and Mycotoxins Assessment

TEST	Results (ng of DNA/mL)	Spores/mL
Aspergillus flavus	0.0000	0
Aspergillus fumigatus	1.3441	15
Aspergillus niger	2.6265	2
Aspergillus ochraceus	0.0000	0
Aspergillus versicolor	0.0000	0
Chaetomium globosum	0.0198	1
Stachybotrys chartarum	1.1588	2
Aspergillus terreus	0.0000	0
Candida auris	0.0000	0
Fusarium solani	0.0000	0

# COMMON SYMPTOMS OF MYCOTOXIN EXPOSURE

- Anxiety, irritability, anger, depression
- Brain fog, memory loss, confusion, early onset dementia
- Hives, skin rashes, fungal infections, gut infections
- Hair loss, autoimmune issues,
- Asthma, runny nose, chronic cough, sinus infections
- Nausea, unexplained weight loss/gain
- Joint pain, muscle pains/cramps
- Numbness/tingling of hands or feet



# HOW CAN I GET TESTED FOR MYCOTOXINS?



- First, enlist the help of a medical practitioner that has a lot of experience testing for mycotoxins and other types of environmental exposures in the body.
- Second, a practitioner can be found by searching the internet for:
  - Functional Medical Doctor
  - Integrative Medical Doctor

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