



Many factors can affect a home or building's health.

**WE PUT ALL THE PIECES TOGETHER.**

The problem may be exposure to mold and mycotoxins.

————— And we may be the answer. —————



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## What are Mycotoxins?

The World Health Organization (WHO), in its 2011 publication Entitled “**Mycotoxins. Children’s Health and the Environment**” defines mycotoxin as follows:

- *Toxin - A natural produced poison.*
- *Mycotoxin - Natural byproducts produced by fungi (i.e.mold) that evoke a toxic response when introduced in low concentrations to Vertebrates (e.g. humans), by a natural route.*

Mycotoxins are produced by a number of different toxin producing fungi found in water damaged indoor environments. Their impact can be life-threatening.



## Warnings from the Experts. Read what the experts have to say about environmental exposure to mold and mycotoxins.

**In 2009, the World Health Organization (WHO) stated:**

“Microbial growth may result in greater numbers of spores, cell fragments, allergens, mycotoxins, endotoxins,  $\beta$ -glucans and volatile organic compounds in indoor air. The causative agents of adverse health effects have not been identified conclusively, but an excess level of any of these agents in the indoor environment is a potential health hazard”. ~ *World Health Organization (WHO) Guidelines for Indoor Air Quality: 2009. Dampness and Mould.*

**In 2004, The Institute of Medicine of the National Academy of Sciences stated:**

*In-vitro* and *in-vivo* studies have demonstrated adverse effects - including immunotoxic, neurologic, respiratory, and dermal responses - after exposure to specific toxins, bacteria, molds, or their products. Such studies have established that exposure to microbial toxins can occur via inhalation and dermal exposure and through ingestion of contaminated food. ~ *Committee on Damp Indoor Spaces and Health Board on Health Promotion and Disease Prevention. 2004. Institute of Medicine of the National Academies.*

**The National Cancer Institute States:**

“Which cancers are associated with exposure to aflatoxins? Exposure to aflatoxins is associated with an increased risk of liver cancer. ~ <http://www.cancer.gov/about-cancer/causes-prevention/risk/substances/aflatoxins>

## Potential Health Effects from Mycotoxin Exposure

Mycotoxins are well documented for their toxic effects on the human cell, causing a number of problems in normal cell function and association with a wide variety of clinical symptoms and diseases shown to the right:

HEALTH EFFECTS
Kidney Toxicity
Immune Suppression
Autism
Neurotoxicity
Depression
Chronic Fatigue Syndrome
Cancer
Acute Pulmonary Hemorrhage
Aplastic Anemia
Birth Defects

# What is an Acceptable or Safe Level of Mycotoxins in your Home?

There is not currently any standard set by the regulatory agencies for indoor mycotoxins...



**but DID YOU KNOW...**

- Aflatoxins, produced by mold found in many homes, are the most potent natural cancer causing agents known to man. Ingestion is KNOWN to cause liver cancer in humans.
- Trichothecenes produced by *Stachybotrys* ("Black Mold"), found in water damaged homes, are so lethal they have been used as chemical warfare agents.
- Ochratoxins, again produced by indoor fungi, are listed in the National Toxicology Program 13th Report on Carcinogens as "Reasonably Anticipated to be Human Carcinogens"
- Animal studies with mycotoxins have shown that, when certain laboratory animals are exposed to mycotoxins by inhalation... they die!
- Studies have shown that mycotoxins can be transferred from a mother to her infant by breast feeding
- It is not usually the mold itself that causes the most severe health effects..... it is the mycotoxins they produce.

## What is an Acceptable Level of Exposure for Your Family?



# You and Your Home Can be Tested for Mycotoxins

**RealTime Labs** can detect the presence of toxigenic mold and mycotoxins with one environmental test.

*EMMA (Environmental Mold and Mycotoxin Assessment).* Tests for the presence of 10 of the most toxigenic molds and 15 of the most toxic mycotoxins.

**RealTime Labs** can detect the presence of Mycotoxins, produced by toxigenic molds in the indoor environments.

*Environmental Mycotoxin Testing.* Tests for the presence of 15 common mycotoxins.

**RealTime Labs** can test the occupants for the presence of mycotoxins using its clinical mycotoxin test.

*Clinical Mycotoxin Testing.* Can test urine samples for the presence of the same 15 mycotoxins as the environmental test. Patients in the following states can order the test directly from RealTime Labs (AK, AR, DE, IA, IN, KS, LA, MN, MS, MO, MT, NC, ND, NE, NM, OH, OK, SD, TX, UT, VA, VT, WA, WI, WV, DC.) Patients in other states can request the test be ordered by their health care provider.

## ORDERING INFORMATION

- EMMA (Environmental Mold and Mycotoxin Assessment).
- Environmental Mycotoxin Test
- Clinical Mycotoxin Test

## Why RealTime Labs?

- ✓ Only CAP and CLIA lab in the US accredited to perform Mycotoxin testing on human clinical samples.
- ✓ Test validation reports have been published in peer-reviewed journals.
- ✓ Largest test panel of Mycotoxins with 15 of the most common Mycotoxins detected.
- ✓ Over 10 years of experience, performing over 100,000 Mycotoxin tests.
- ✓ Scientific committee includes world-renowned experts in mold and Mycotoxins.
- ✓ Numerous scientific publications and conference presentations on mold and Mycotoxins from medical team and scientific committee.
- ✓ Accepts Medicare and Tricare.

