# **INTERPRETING TEST RESULTS**

# **MYCOTOXIN ANTIBODIES ANALYSIS**

"THE GREAT MASQUARADER OF THE 21<sup>ST</sup> CENTURY": WORLD HEALTH ORGANIZATION

ANDREW W. CAMPBELL, M.D.

# ANDREW W. CAMPBELL, M.D.

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- International Journal of Complementary and Alternative Medicine.

THE KEY TO SOLVING **MEDICAL** PROBLEMS **CAUSED BY TOXINS: 1.DETECT** 2.REMOVE **3.REPAIR** 

Detect Detect the cause. Remove Remove the cause. Repair Repair the damage.

**UNDERSTANDING ANTIBODIES** There are 4 categories of pathogens: 1. Bacteria 2. Viruses 3. Pathogenic Fungi 4. Parasites •We develop antibodies to these after an infection/exposure

## UNDERSTANDING ANTIBODIES

1. These 4 pathogens are living organisms, have cell walls, etc.

2. Antibodies to these mean past exposure.

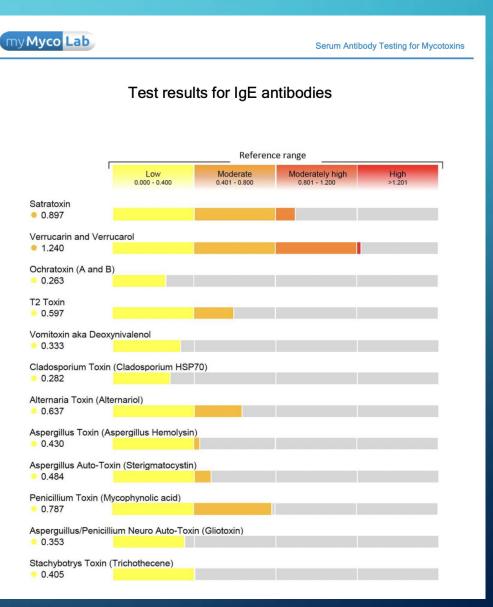
3. Toxins are not alive, do not have cell walls, etc.

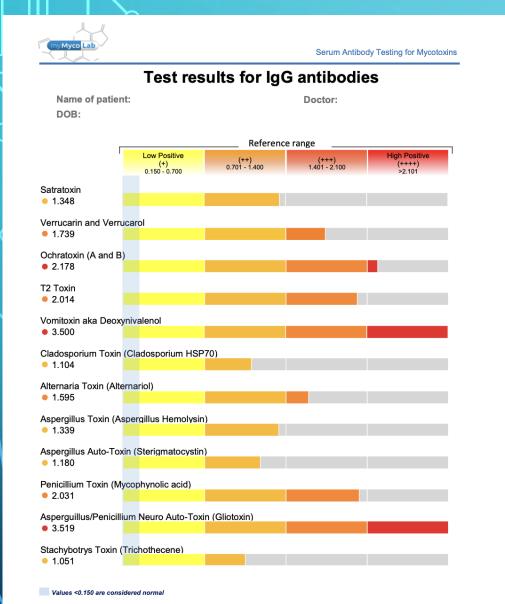
4. Antibodies to toxins indicate current immune reaction and/or colonization, not exposure sometime in the past.

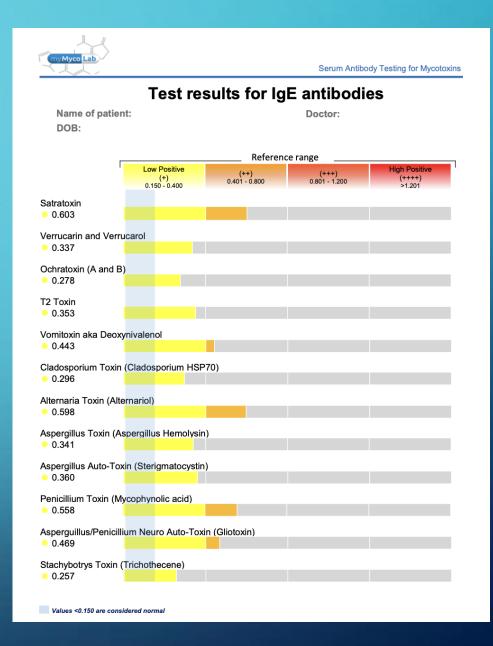
5. Once the toxins are gone from the body, the antibody reaction fades away.

#### my Myco Lab Serum Antibody Testing for Mycotoxins Test results for IgG antibodies Reference range Moderate Moderately high High Low 0.000 - 0.700 0.701 - 1.600 1.601 - 2.199 >2.2 Satratoxin 0.919 Verrucarin and Verrucarol 0 1.563 Ochratoxin (A and B) • 1.192 T2 Toxin • 1.774 Vomitoxin aka Deoxynivalenol 2.652 Cladosporium Toxin (Cladosporium HSP70) 0.825 Alternaria Toxin (Alternariol) 0 1.076 Aspergillus Toxin (Aspergillus Hemolysin) 0 1.277 Aspergillus Auto-Toxin (Sterigmatocystin) 0.877 Penicillium Toxin (Mycophynolic acid) 0 1.317 Asperguillus/Penicillium Neuro Auto-Toxin (Gliotoxin) • 1.288 Stachybotrys Toxin (Trichothecene) 0.775

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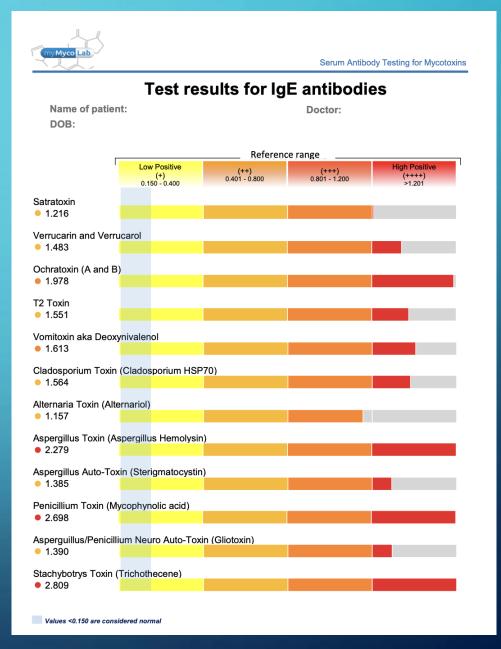


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my Myco Lab			Serum Antibo	dy Testing for Mycotoxir
	Test res	ults for IgC	3 antibodie	es
Name of patier	nt:		Doctor:	
DOB:				
ſ		Reference	e range	
	Low Positive (+) 0.150 - 0.700	(++) 0.701 - 1.400	(+++) 1.401 - 2.100	High Positive (++++) >2.101
Satratoxin				
• 1.533				
Verrucarin and Verr • 1.587	ucarol			
Ochratoxin (A and B	)			
• 1.905				
T2 Toxin • 1.678				
Vomitoxin aka Deox ● 3.618	ynivalenol			
Cladosporium Toxin ● 1.012	(Cladosporium HSP7	70)		
Alternaria Toxin (Alt	ernariol)			
• 1.330				
Aspergilius Toxin (A 1.290	spergillus Hemolysin)			
Aspergillus Auto-To: • 1.029	xin (Sterigmatocystin)			
Penicillium Toxin (M ● 1.276	ycophynolic acid)			
Asperguillus/Penicill ● 0.767	ium Neuro Auto-Toxir	n (Gliotoxin)		
Stachybotrys Toxin ● 1.190	(Trichothecene)			

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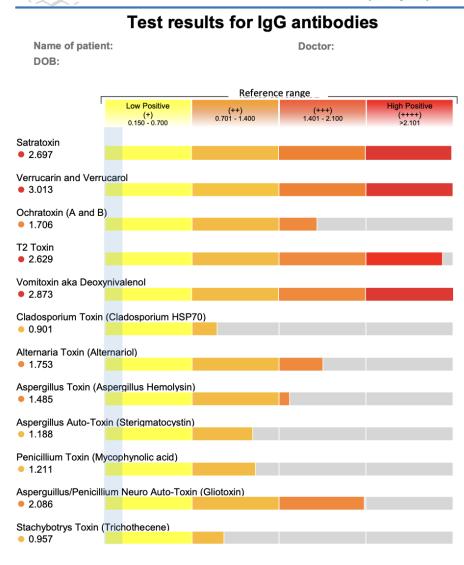


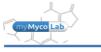


Values <0.150 are considered normal

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Serum Antibody Testing for Mycotoxins





### Test results for IgE antibodies

Name	of	patient:
DOB:		

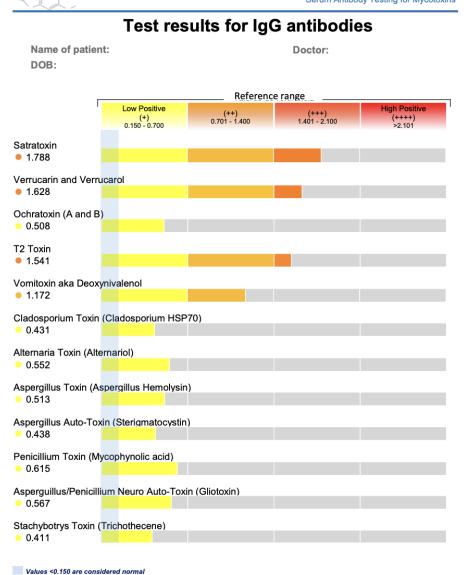
Doctor:

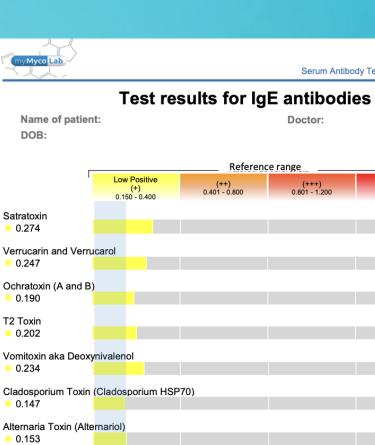
_	Reference range					
Ι	Low Positive (+) 0.150 - 0.400	(++) 0.401 - 0.800	(+++) 0.801 - 1.200	High Positive (++++) >1.201		
Satratoxin • 0.244						
Verrucarin and Verru • 0.237	icarol					
Ochratoxin (A and B o 0.169	)					
T2 Toxin • 0.271						
Vomitoxin aka Deoxy o 0.234	nivalenol					
Cladosporium Toxin • 0.175	(Cladosporium HSP)	70)				
Alternaria Toxin (Alte	ernariol)					
Aspergillus Toxin (As o 0.231	spergillus Hemolysin)	)				
Aspergillus Auto-Tox 0.222	in (Sterigmatocystin)					
Penicillium Toxin (M 0.195	ycophynolic acid)					
Asperguillus/Penicilli 0.235	um Neuro Auto-Toxi	n (Gliotoxin)				
Stachybotrys Toxin ( o 0.192	Trichothecene)					



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Serum Antibody Testing for Mycotoxins





Aspergillus Toxin (Aspergillus Hemolysin) Aspergillus Auto-Toxin (Sterigmatocystin) Penicillium Toxin (Mycophynolic acid) Asperguillus/Penicillium Neuro Auto-Toxin (Gliotoxin) Stachybotrys Toxin (Trichothecene)

Values <0.150 are considered normal

0.149

0.160

0.172

0.150

0.164

**High Positive** 

(++++)

>1.201



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0

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	Test res	ults for Ig0	G antibodie	es
Name of patier DOB:	nt:		Doctor:	
		Referenc	e range	
I	Low Positive (+) 0.150 - 0.700	(++) 0.701 - 1.400	(+++) 1.401 - 2.100	High Positive (++++)
atratoxin 0.983	0.150 - 0.700			>2.101
errucarin and Verr	ucarol			
chratoxin (A and B	)			
2 Toxin				
0 1.076 omitoxin aka Deox	ynivalenol			
	(Cladosporium HSF	270)		
0.458 Iternaria Toxin (Alto 0.932	ernariol)			
	spergillus Hemolysir	1)		
spergillus Auto-To:	kin (Sterigmatocystin	)		
0.637 enicillium Toxin (M	ycophynolic acid)			
0.946	ium Neuro Auto-Tox	in (Gliotoxin)		
1.124				
tachybotrys Toxin ( 0.706	(Trichothecene)			

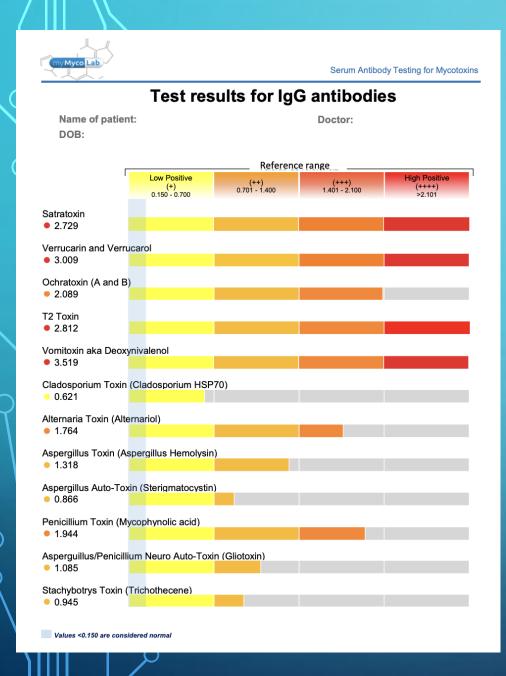


### Test results for IgE antibodies

Doctor:

Name of patient:	
DOB:	

_	Reference range					
1	Low Positive (+) 0.150 - 0.400	(++) 0.401 - 0.800	(+++) 0.801 - 1.200	High Positive (++++) >1.201		
Satratoxin • 0.444						
Verrucarin and Verru • 0.439	carol					
Ochratoxin (A and B) o 0.590						
T2 Toxin • 0.475						
Vomitoxin aka Deoxy o 0.593	nivalenol					
Cladosporium Toxin • 0.458	(Cladosporium HSF	270)				
Alternaria Toxin (Alte o 0.447	rnariol)					
Aspergillus Toxin (As • 0.531	pergillus Hemolysir	1)				
Aspergillus Auto-Tox 0.454	in (Sterigmatocystir	1)				
Penicillium Toxin (My 0.297	cophynolic acid)					
Asperguillus/Penicilli 0.607	um Neuro Auto-Tox	in (Gliotoxin)				
Stachybotrys Toxin ( • 0.515	Frichothecene)					

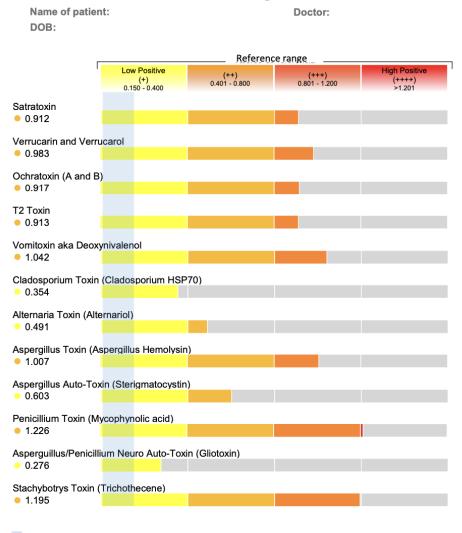


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### Test results for IgE antibodies

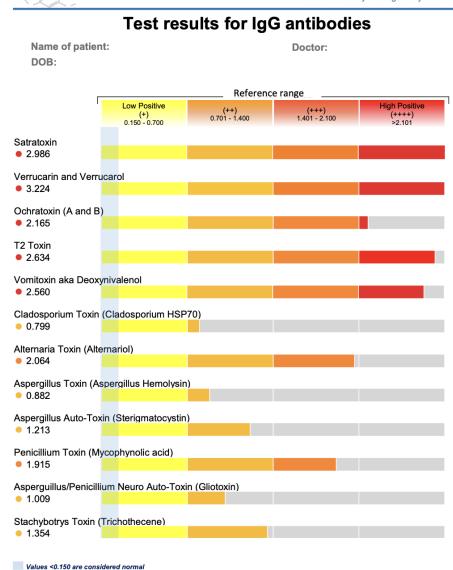




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Serum Antibody Testing for Mycotoxins





#### Test results for IgE antibodies

Reference range

Doctor:

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		Law Dealthing	
DOB:			
Name of patie	ent:		

		(+) 50 - 0.400	(++) 0.401 - 0.800	(+++) 0.801 - 1.200	(++++ >1.20
Satratoxin • 0.293					
Verrucarin and Verru	carol				
0.224					
Ochratoxin (A and B 0.191	)				
T2 Toxin					
0.229					
Vomitoxin aka Deoxy	nivalen	ol			
0.333					

Cladosporium Toxin	(Clados	spo	rium HS	SP70)	
0.195					

Alternaria	Toxin	(Alte	rnariol)	
0.280				

0.174

Aspergillus Toxin (Aspergillus Hemolysin)

Aspergillus Auto-Toxin (Sterigmatocystin) • 0.275

Penicillium Toxin (Mycophynolic acid) • 0.251

Asperguillus/Penicillium Neuro Auto-Toxin (Gliotoxin) 0.175

Stachybotrys Toxin (Trichothecene) • 0.216

#### myMyco Lab Serum Antibody Testing for Mycotoxins Test results for IgG antibodies Patient: Reference range Moderately high Low 0.000 - 0.700 Moderate 0.701 - 1.600 High 1.601 - 2.199 Satratoxin 1.758 Verrucarin and Verrucarol 1.728 Ochratoxin (A and B) • 1.326 T2 Toxin 2.209 Vomitoxin aka Deoxynivalenol • 1.668 Cladosporium Toxin (Cladosporium HSP70) 0.762 Alternaria Toxin (Alternariol) • 1.720 Aspergillus Toxin (Aspergillus Hemolysin) • 1.860 Aspergillus Auto-Toxin (Sterigmatocystin) • 1.920 Penicillium Toxin (Mycophynolic acid) • 1.440 Asperguillus/Penicillium Neuro Auto-Toxin (Gliotoxin) • 1.621 Stachybotrys Toxin (Trichothecene) 0.837

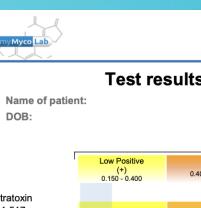
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### my Myco Lab

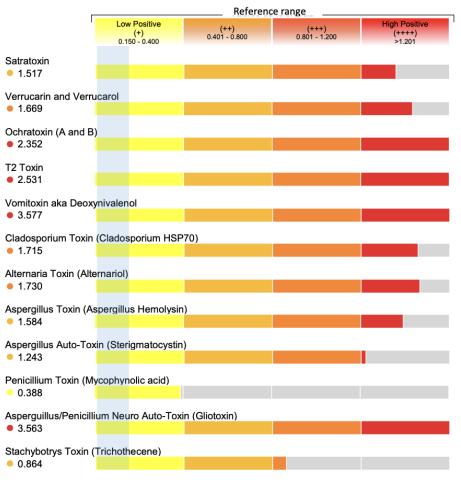
#### Test results for IgE antibodies Patient: Reference range Moderate Moderately high High >1.201 Low 0.000 - 0.400 0.401 - 0.800 0.801 - 1.200 Satratoxin 0.259 Verrucarin and Verrucarol 0.261 Ochratoxin (A and B) 0.250 T2 Toxin 0.248 Vomitoxin aka Deoxynivalenol 0.440 Cladosporium Toxin (Cladosporium HSP70) 0.260 Alternaria Toxin (Alternariol) 0.234 Aspergillus Toxin (Aspergillus Hemolysin) 0.250 Aspergillus Auto-Toxin (Sterigmatocystin) 0.430 Penicillium Toxin (Mycophynolic acid) 0.195 Asperguillus/Penicillium Neuro Auto-Toxin (Gliotoxin) 0.286 Stachybotrys Toxin (Trichothecene) 0.213

myMyco Lab			Serum Antiboo	dy Testing for Mycotoxins
	Test res	ults for Ig	G antibodie	s
Name of patient DOB:	:		Doctor:	
-		Reference	e range	1
1	Low Positive (+) 0.150 - 0.700	(++) 0.701 - 1.400	(+++) 1.401 - 2.100	High Positive (++++) >2.101
Satratoxin • 1.271				
Verrucarin and Verru	carol			
Ochratoxin (A and B) • 1.338				
T2 Toxin • 1.309				
Vomitoxin aka Deoxy • 3.581	nivalenol			
Cladosporium Toxin ( • 1.282	Cladosporium HSP7	70)		
Alternaria Toxin (Alter 1.017	rnariol)			
Aspergillus Toxin (As • 0.938	pergillus Hemolysin)			
Aspergillus Auto-Toxi • 1.070	n (Sterigmatocystin)			
Penicillium Toxin (My • 1.164	cophynolic acid)			
Asperguillus/Penicilliu <ul> <li>2.236</li> </ul>	um Neuro Auto-Toxir	n (Gliotoxin)		
Stachybotrys Toxin (1 • 0.983	richothecene)			



### Test results for IgE antibodies

Doctor:



Values <0.150 are considered normal

0

0

Mycotoxin Research (2022) 38:205–220 https://doi.org/10.1007/s12550-022-00461-3

## **ORIGINAL ARTICLE**



# Analysis of mold and mycotoxins in naturally infested indoor building materials

Viktoria Lindemann<sup>1</sup> · Tim Schleiner<sup>2</sup> · Ulrich Maier<sup>2</sup> · Hubert Fels<sup>2</sup> · Benedikt Cramer<sup>1</sup> · Hans-Ulrich Humpf<sup>1</sup>

Received: 15 March 2022 / Revised: 15 June 2022 / Accepted: 27 June 2022 / Published online: 28 July 2022 © The Author(s) 2022

"As molds are ubiquitously distributed in the environment and the presence of certain species has even been documented on the International Space Station (Vesper et al. 2008), the same may be assumed for mycotoxins. Mycotoxin Research (2022) 38:205–220 https://doi.org/10.1007/s12550-022-00461-3

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Received: 15 March 2022 / Revised: 15 June 2022 / Accepted: 27 June 2022 / Published online: 28 July 2022 © The Author(s) 2022

"In order to provide a secure identification and characterization of indoor mold exposure, directly contaminated building materials, swab samples, and sampling of air on different media (object slides, petri dishes with filter material/agar) with subsequent microscopic or morphologic differentiation are more reliable alternatives applied in routine analysis" Mycotoxin Research (2022) 38:205–220 https://doi.org/10.1007/s12550-022-00461-3

## **ORIGINAL ARTICLE**



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"fungi containing foodstuffs are still a global burden, affecting developing countries much more than developed regions such as the EU, where strict regulations are ensuring food safety."

## Deoxynivalenol Exposure in Norway, Risk Assessments for Different Human Age Groups Sundheim L, Lillegaard IT, Fæste CK, Brantsæter AL, Brodal G, Eriksen GS. *Toxins* (Basel). 2017;9(2):46. Published 2017 Feb 4.

To illustrate a worst-case acute exposure, the amount of oat flakes or wheat bread a person would have to consume to reach the Acute Reference Dose (ARfD) was estimated using the highest measured concentrations. A a 2-year-old child with a body weight of 28.2 lbs, would have to consume 4.7 oz oat flakes, corresponding to about 38.8 oz ready-to-eat oatmeal porridge, or 3.2 oz wheat, corresponding to 4.7 oz based bread (approximately 3.5 slices of bread), to exceed the ARfD.

An adult with a body weight of 170.9 lbs would have to consume 28.2 oz oat flakes, corresponding to about 14.3 lbs ready-to-eat oatmeal porridge, or 19.5 oz wheat, corresponding to 28.2 oz bread (20 slices of bread), to exceed the ARfD.

## WHAT STUDIES SHOW:

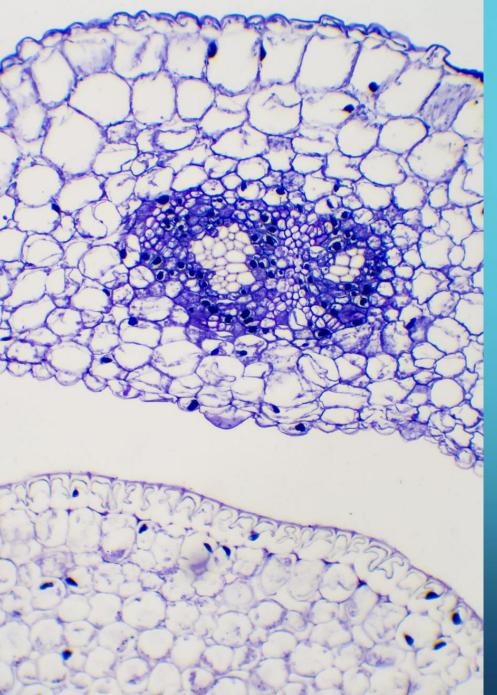
- Binders rely on the absorption of mycotoxins from the gut, preventing it from getting into the bloodstream.
- Included are kaolinite, clays, activated charcoal, zeolite, bentonite, and aluminosilicates.
- They are effective in neutralizing aflatoxins.
- They are <u>ineffective</u> in all other mycotoxins. In addition, they also bind vital vitamins, as well as macro- and micro-elements.

 Rogowska A, et al. <u>Zearalenone and its metabolites: Effect on human health, metabolism and</u> <u>neutralisation methods</u>. Toxicon. 2019 Apr 15;162:46-56.

# IN URINE TESTING FOR MYCOTOXINS: • The variability of mycotoxins concentration in urine and its volume based on daily intake demands urine sampling at different time points during the day and the normalization of results with creatinine concentration. The interindividual comparison of mycotoxins in challenging because various factors, such as gender, age, diet, and muscle mass, can influence creatinine secretion.

THE ELISA METHOD TO DETECT MYCOTOXINS IN HUMAN SERUM COMES WITH <u>SIGNIFICANT ACCURACY, PRECISION,</u> <u>AND SPECIFICITY</u>.

GARG K, VILLAVICENCIO-AGUILAR F, SOLANO-RIVERA F, GILBERT L. <u>ANALYTICAL VALIDATION OF A DIRECT COMPETITIVE ELISA FOR</u> <u>MULTIPLE MYCOTOXIN DETECTION IN HUMAN SERUM</u>. TOXINS (BASEL). 2022 OCT 25;14(11):727.



## FUNGI FOUND IN 35 DIFFERENT CANCERS

• PAN-CANCER ANALYSES REVEAL CANCER-TYPE SPECIFIC FUNGAL ECOLOGIES AND BACTERIOME INTERACTIONS. CELL. 2022 SEP 29;185(20):3789-3806. NARUNSKY-HAZIZA L, SEPICH-POORE GD, LIVYATAN I, ET AL.

# **FUNGI FOUND IN 35 DIFFERENT CANCERS**

- <u>17,401 patient tissue</u>, blood, and plasma samples from 35 cancer types. <u>None were urine</u>.
- Fungi were found in individual tumor types and contribute to carcinogenesis:
- Esophageal, pancreatic, breast, lung, melanoma, ovary, colon, brain, and bone.

FOR MORE INFORMATION immunedoctor@gmail.com •For a copy of the patient questionnaire, and: • "Mold, Mycotoxins, the Brain, the Gut, and Misconceptions", Campbell AW, Weinstock L. Alt Ther Health Med. 2022 Mar;28(3)8-12.

