US BioTek LABORATORIES

Mycotoxin Panel

Company:		**Sex:**	**Collected:**
Patient:		**Date of Birth:**	**Received:**
External ID:		**Accession #:**	**Completed:**
Sample Type:			

COLOR KEY: NOT PRESENT | EQUIVOCAL | PRESENT

(PPB: Parts Per Billion DL: Detectable Limit)

Ochratoxin

	Results			Reference Range
Ochratoxin A	<1.8	1.8 - <2	>=2	Not Present
		2.812 PPB		

Aflatoxin

	Results			Reference Range
Aflatoxin Group:	<0.8	0.8 - <1	>=1	Not Present
Aflatoxin B1		1.124 PPB		
Aflatoxin B2				
Aflatoxin G1				
Aflatoxin G2				

Trichothecene

	Results			Reference Range
Trichothecene Group (Macrocyclic):	<0.07	0.07 - <0.09	>=0.09	Not Present
Roridin A		0.272 PPB		
Roridin E				
Roridin H				
Roridin L-2				
Verrucarin A				
Verrucarin J				
Satratoxin G				
Satratoxin H				
Isosatratoxin F				

Gliotoxin

	Results			Reference Range
Gliotoxin Derivative	<0.5	0.5 - <1	>=1	Not Present
		2.112 PPB		

Zearalenone

	Results			Reference Range
Zearalenone	<0.5	0.5 - <0.7	>=0.7	Not Present
		0.639 PPB		

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Mycotoxin Panel

Company:		**Sex:**	**Collected:**
Patient:		**Date of Birth:**	**Received:**
External ID:		**Accession #:**	**Completed:**
Sample Type:			

Test	Result	Value (ppb)	Reference Range
Ochratoxin A	Present	2.812	Not Present <1.8 Equivocal 1.8 - <2 Present >=2
Aflatoxin Group: Aflatoxin B1 Aflatoxin B2 Aflatoxin G1 Aflatoxin G2	Present	1.124	Not Present <0.8 Equivocal 0.8 - <1 Present >=1
Trichothecene Group (Macrocyclic): Roridin A Roridin E Roridin H Roridin L-2 Verrucarin A Verrucarin J Satratoxin G Satratoxin H Isosatratoxin F	Present	0.272	Not Present <0.07 Equivocal 0.07 - <0.09 Present >=0.09
Gliotoxin Derivative	Present	2.112	Not Present <0.5 Equivocal 0.5 - <1 Present >=1
Zearalenone	Equivocal	0.639	Not Present <0.5 Equivocal 0.5 - <0.7 Present >=0.7

About These Tests:

Test results should be evaluated in relation to patient symptoms, clinical history, and other laboratory findings. Individuals should review their results with a healthcare provider.

These tests were developed and the performance characteristics determined by RealTime Laboratories. They have not been cleared or approved by the U.S. Food and Drug Administration (FDA). This laboratory is certified under the Clinical Laboratory Improvement Amendments (CLIA) as qualified to perform high complexity clinical laboratory testing. The New York State (NYS) Department of Health (DOH) has allowed these tests to be offered in the NYS under the current RealTime Laboratories permit. The NYS DOH has not evaluated any test claims nor reviewed the accuracy of these tests.

	Mycotoxin	Cellular Activity of Mycotoxin	Symptoms/Other	Association with a "Disease State"
AFLATOXIN FAMILY **Organisms: *Aspergillus flavus, Aspergillus oryzae, Aspergillus fumigatus, Aspergillus parasiticus*** **Aflatoxins have been associated with liver cancer [2,3], cirrhosis [4,5], and other health issues**				
1	Aflatoxin B1	Binds DNA and proteins [6,7]	Shortness of breath [8], weight loss [10], most potent and highly carcinogenic.	Primarily attacks the liver, other organs include kidneys and lungs [11]
2	Aflatoxin B2	Inhibits DNA and RNA replication [12]	Impaired fetal growth [13,14]	Affects the liver and kidneys [11]
3	Aflatoxin G1	Cytotoxic, induces apoptosis in cells, DNA damage [1]	A flavus is a leading cause of invasive aspergillus in immunocompromised patients [15]	Cancer, neonatal jaundice [2,3,16]
4	Aflatoxin G2	Cancer, neonatal jaundice [2,3,16]	Aflatoxicosis in humans and animals [15]	Malnutrition, lung cancer [2,3,16]
OCHRATOXIN A **Organisms: *Aspergillus ochraceus, Aspergillus niger, Penicillium species***				
5	Ochratoxin A	Inhibits mitochondrial ATP, potent teratogen, and immune suppressor [17-19]	Fatigue, dermatitis, irritated bowel [20-22]	Kidney disease and cancer [23,24]
MACROCYCLIC TRICHOTHECENES (Group D) **Organism: *Stachybotrys chartarum***				
6	Satratoxin G	DNA, RNA, and protein synthesis inhibition [25]	Fatigue [26]	Bleeding disorders, nervous system disorders [27,28]
7	Satratoxin H	Inhibits protein synthesis [25]	Fatigue [26]	Breathing issues [29]
8	Isosatratoxin F	Immunosuppression [30]	Weakened immune system [30]	
9	Roridin A	Immunosuppression [30]	Weakened immune system [30]	
10	Roridin E	DNA, RNA, and protein synthesis disruption [25,32]	Weakened immune system [30]	Lung and nasal olfactory problems [31]
11	Roridin H	Inhibits protein synthesis [25]	Weakened immune system [30]	
12	Roridin L-2	Immunosuppression [30]	Weakened immune system [30]	
13	Verrucarin A	Immunosuppression [30]		
14	Verrucarin J	Immunosuppression [30]		
GLIOTOXIN DERIVATIVE **Organisms: *Aspergillus fumigatus, Aspergillus terreus, Aspergillus niger, Aspergillus flavus***				
15	Gliotoxin	Attacks intracellular function in immune system [34]	Memory and breathing issues [35,36]	Immune dysfunction disorders [34]
ZEARALENONE **Organisms: *Fusarium species***				
16	Zearalenone	Estrogen mimic [37,38]	Early puberty, low sperm counts, cancer [39-42]	Cancer [39,40]

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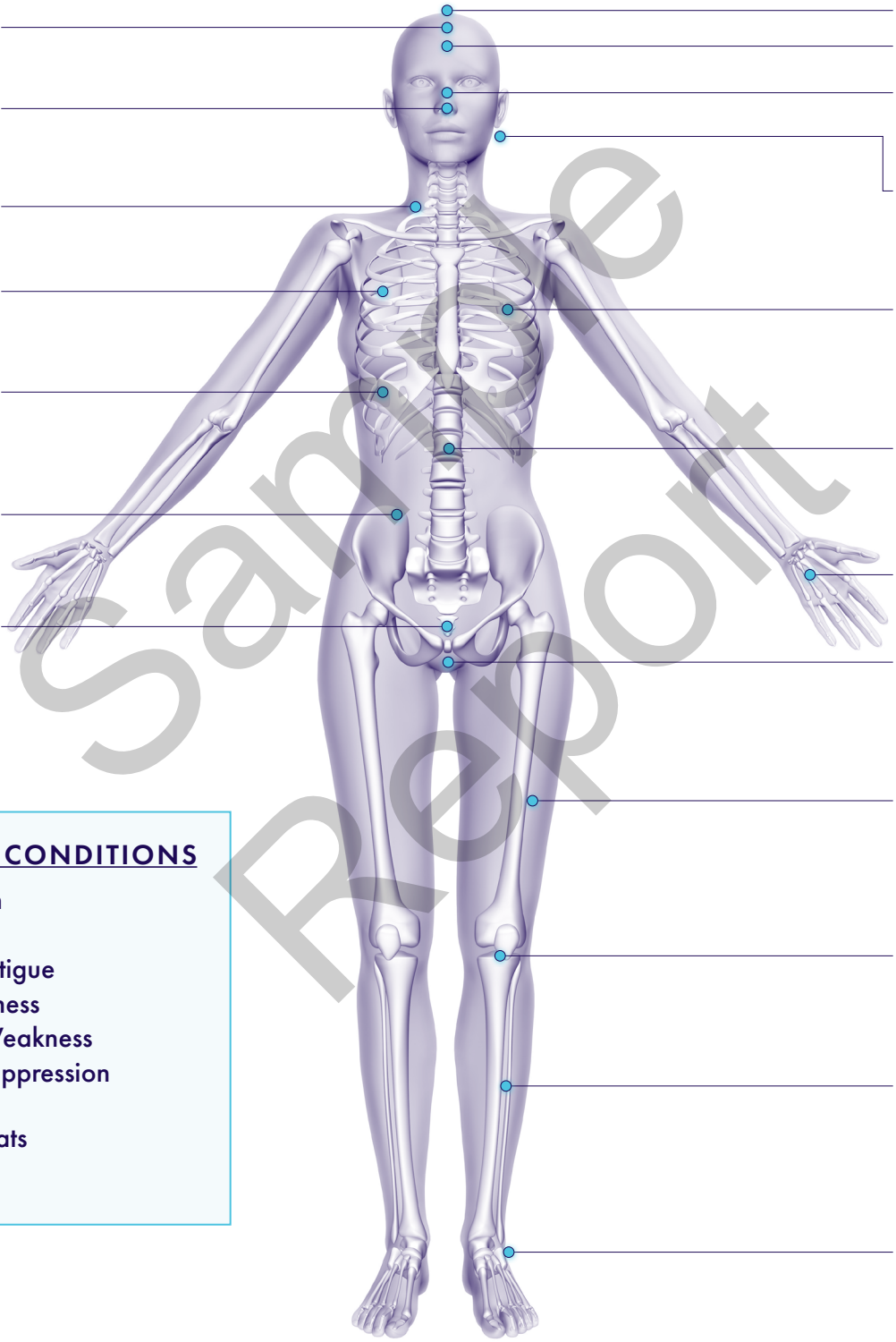
SYMPTOMS OF
Mycotoxins



- Headaches & Dizziness
- Nosebleeds
- Painful Lymph Nodes
- Asthma
- Shortness Of Breath
- Gastrointestinal distress *(such as: IBS, nausea, diarrhea, cramps, etc.)*
- Decreased Libido
- Hair Loss
- Brain Fog
- Sinusitis & Sinus Issues
- Hearing Problems
- Cardiac Arrhythmias
- Abdominal Pain and Discomfort
- Numbness and Tingling In Hands
- Uncomfortable or Frequent Unination
- Rashes & Hives
- Muscles and Joint Aches and Pains
- Fluid Retention
- Numbness and Tingling In Feet

SYSTEMIC CONDITIONS

- Depression
- Anxiety
- Chronic Fatigue
- Chronic Illness
- General Weakness
- Immune Suppression
- Anemia
- Night Sweats