

MYCOTOXINS DEMO

Name: MYCOTOXINS DEMO
Date of Birth: 01-01-1111
Gender: Male
Age: 01
Height:
Weight:
Fasting: FASTING

Telephone: 000-000-0000
Street Address:
Email:

FINAL REPORT

Accession ID: 2308190002

Provider Information

Practice Name: DEMO CLIENT, MD
Provider Name: DEMO CLIENT, MD
Phlebotomist: 0

Telephone: 000-000-0000
Address: 3521 Leonard Ct, Santa Clara, CA 95054

Report Information

Current Result Previous Result In Control Moderate Risk

Specimen Information

Sample Type	Collection Time	Received Time	Report	Final Report Date
Metal Free Urine	2023-08-31 06:30 (PDT)	2023-09-01 15:45 (PDT)	Mycotoxins - P2	2023-09-11 16:59 (PDT)

SAMPLE



3521 Leonard Ct, Santa Clara, CA 95054
1-866-364-0963 | support@vibrant-america.com | www.vibrant-america.com

TNP Test not performed

R&L Refer to risks and limitations at the end of report

Notes Refer to Lab notes at the end of the table

INTRODUCTION

Vibrant Wellness is pleased to present to you, 'Mycotoxins panel', to help you make healthy lifestyle, dietary and treatment choices in consultation with your healthcare provider. It is intended to be used as a tool to encourage a general state of health and well-being. The Vibrant Mycotoxins Panel is a test to identify and quantify the level of a large set of mycotoxins from both food and environmental molds. The panel is designed to give a complete picture of an individual's levels of these mycotoxins in urine. The results are provided in 3 tables subgrouping the mycotoxins into Aflatoxins, Trichothecenes and Other Mycotoxins. Reference ranges were determined using urine samples from 1000 apparently healthy individuals.

Methodology:

The Vibrant Mycotoxins panel uses tandem mass spectrometry methodology (LC-MS/MS) for quantitative detection of mycotoxins in urine samples. Urine creatinine is measured using a kinetic colorimetric assay based on the Jaffé method. All mycotoxins are reported as the quantitative result normalized to urine creatinine to account for urine dilution variations.

Interpretation of Report:

The report begins with the summary page which lists only the mycotoxins whose levels are high or moderate based on the reference range. Additionally, the previous value is also indicated to help check for improvements every time the test is ordered. Following this section is the complete list of the mycotoxins results and their absolute levels are normalized with respect to Creatinine in a histogram format to enable a full overview along with the reference ranges. The level of the mycotoxin with reference range is shown with three shades of color – Green, Yellow and Red. The result in green corresponds to 0th to 75th percentile indicates mild (Low diet intake) exposure to the respective toxin. The result in yellow corresponds to 75th to 95th percentile indicates moderate exposure to the respective toxin whereas the result in red corresponding to greater than 95th percentile indicates high exposure to the respective toxin. All contents provided in the report are purely for informational purposes only and should not be considered medical advice. Any changes based on the information should be made in consultation with the clinical provider.

The Vibrant Wellness platform provides tools for you to track and analyze your general wellness profile. Testing for the Mycotoxins panel is performed by Vibrant America, a CLIA certified lab CLIA#:05D2078809. Vibrant Wellness provides and makes available this report and any related services pursuant to the Terms of Use Agreement (the "Terms") on its website at www.vibrant-wellness.com. By accessing, browsing, or otherwise using the report or website or any services, you acknowledge that you have read, understood, and agree to be bound by these terms. If you do not agree to accept these terms, you shall not access, browse, or use the report or website. The statements in this report have not been evaluated by the Food and Drug Administration and are only meant to be lifestyle choices for potential risk mitigation. Please consult your physician/dietitian for medication, treatment, or lifestyle management. This product is not intended to diagnose, treat, or cure any disease.

Please note:

Pediatric ranges have not been established for this test. It is important that you discuss any modifications to your diet, exercise, and nutritional supplementation with your physician before making any changes. To schedule an appointment with Vibrant Clinical Dietitians please call: Toll-Free 866-364-0963.

Aflatoxin

Test Name	Current	Previous	75th	Result	95th	Reference
Aflatoxin M1 (ng/g)	11.85	15.69 (02-01-2023)	3.6		6.4	≤6.4

BACKGROUND

Aflatoxin M1 is a metabolite of aflatoxin B1, which is produced by molds such as *Aspergillus flavus* and *Aspergillus parasiticus*. Aflatoxin M1 is formed when animals, particularly dairy cows, consume feed contaminated with aflatoxin B1, and it is excreted in their milk.

ASSOCIATED RISK

Aflatoxin M1 has been regarded as a human carcinogen. It can cause liver damage, immune suppression, internal haemorrhaging, muscle tremors, and impact gain and efficiency.

POSSIBLE SOURCES

Contaminated milk. Aflatoxin M1 is mainly found in the milk of cattle fed with contaminated aflatoxin feed. Consumption of such animal products exposes humans to Aflatoxin M1.

DETOX SUGGESTIONS

To mitigate aflatoxin M1 effects, it is important to include a diet rich in antioxidants, stay hydrated, and consider liver-supporting supplements like milk thistle. Prevention through food safety practices is key, as there is no direct method to detoxify aflatoxin from the body.

Other Mycotoxins

Test Name	Current	Previous	75th	Result	95th	Reference
Ochratoxin A (OTA) (ng/g)	4.55	5.39 (02-01-2023)	3.83		6.8	≤6.8

BACKGROUND

Ochratoxin is a mycotoxin produced by various fungal species such as *Aspergillus ochraceus*, *Aspergillus carbonarius*, *Aspergillus niger* and *Penicillium verrucosum*.

ASSOCIATED RISK

Ochratoxin A has been recognised as a renal toxin owing to its ability to induce nephrotoxicity and renal tumors. It displays a long elimination half-life and stimulates the major inflammatory cytokines released. Ochratoxin A is efficiently absorbed from the gastrointestinal tract into the small intestine where it seen to effectively interrupt the intestinal barrier functions.

POSSIBLE SOURCES

Contaminated Barley, oats, rye, wheat, coffee beans, pork.

DETOX SUGGESTIONS

Detoxification of ochratoxin involves the use of activated charcoal (AC) to bind and neutralize the toxin in the gastrointestinal tract. To minimize the risk of nutrient depletion, AC should be taken separately from essential nutrients. Concurrent use of an oral multimineral formula or IV nutrient therapy can help replenish any lost nutrients during detoxification.

Trichothecenes

Test Name	Current	Previous	75th	Result	95th	Reference
Roridin A (ng/g)	4.44	7.48 (02-01-2023)	4.28		7.6	≤7.6

BACKGROUND

Roridin A, a cytostatic compound, was isolated from cultures of *Myrothecium verrucaria* and *Myrothecium roridum*.

ASSOCIATED RISK

Experiments have demonstrated that exposure to Roridin A poses associated risks including nasal inflammation, increased secretion of mucus, and potential damage to the olfactory system.

POSSIBLE SOURCES

Oral, dermal, inhalation, and parenteral (contaminated drugs).

DETOX SUGGESTIONS

Detoxification strategies for Roridin A include the use of activated charcoal solutions as adsorbents to bind the toxin in the gastrointestinal tract and facilitate its removal through bowel excretion. Additionally, antioxidants can mitigate trichothecene-induced damage by combating the production of reactive oxygen species. A diet rich in probiotics, vitamins, nutrients, proteins, and lipids aids in reducing symptoms of trichothecene poisoning.

Verrucar J (ng/g)	6.21	6.32 (02-01-2023)	5.18		9.2	≤9.2
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BACKGROUND

Verrucar J, also known as Muconomycin B, originates from the *Myrothecium* fungal group. It prompts the production of reactive oxygen species (ROS) and triggers apoptosis in various cancer cell lines, including A549, HCT 116, and SW-620. Additionally, Verrucar J exhibits efficacy against *Candida albicans* and *Mucor miehei*.

ASSOCIATED RISK

Verrucar J toxicity can lead to severe adverse effects including immune suppression, cytotoxicity, skin necrosis, hemorrhage, anemia, and granulocytopenia. Additionally, it can cause oral epithelial lesions, hematopoietic disorders, alimentary toxic aleukia (ATA), hypotension, and coagulopathy.

POSSIBLE SOURCES

Verrucar J is produced by *Stachybotrys chartarum*, commonly known as black mold. It can be found in indoor environments contaminated with mold, posing risks of inhalation. Moreover, trichothecene mycotoxins like Verrucar J can easily penetrate cell membranes, making absorption possible through ingestion and skin contact.

DETOX SUGGESTIONS

Detoxification strategies for Verrucar J include the use of activated charcoal solutions as adsorbents to bind the toxin in the gastrointestinal tract and facilitate its removal through bowel excretion. Additionally, antioxidants can mitigate trichothecene-induced damage by combating the production of reactive oxygen species. A diet rich in probiotics, vitamins, nutrients, proteins, and lipids aids in reducing symptoms of trichothecene poisoning.

Creatinine

Test Name	Current	Previous	Result	Reference
Urine Creatinine (mg/mL)	0.74	1.09 (01-18-2023)		0.25-2.16

Aflatoxin

Test Name	Current	Previous	75th	Result	95th	Reference
Aflatoxin B1 (AFB1) (ng/g)	2.34	7.80 (02-01-2023)	3.9		6.93	≤6.93
Aflatoxin B2 (AFB2) (ng/g)	3.97	1.82 (02-01-2023)	4.58		8.13	≤8.13
Aflatoxin G1 (ng/g)	2.35	0.47 (02-01-2023)	3.68		6.53	≤6.53
Aflatoxin G2 (ng/g)	4.76	4.63 (02-01-2023)	6.08		10.8	≤10.8
Aflatoxin M1 (ng/g)	11.85	15.69 (02-01-2023)	3.6		6.4	≤6.4

Other Mycotoxins

Test Name	Current	Previous	75th	Result	95th	Reference
Chaetoglobosin A (CHA) (ng/g)	9.06	4.25 (02-01-2023)	17.93		31.87	≤31.87
Citrinin (CTN) (ng/g)	1.97	3.83 (02-01-2023)	7.05		12.53	≤12.53
Dihydrocitrinone (ng/g)	3.43	8.63 (02-01-2023)	9.3		16.53	≤16.53
Enniatin B1(ENN B1) (ng/g)	0.05	0.12 (02-01-2023)	0.13		0.22	≤0.22
Fumonisin B1 (ng/g)	1.90	10.91 (02-01-2023)	3.45		6.13	≤6.13
Fumonisin B2 (ng/g)	1.92	0.48 (02-01-2023)	4.05		7.2	≤7.2
Fumonisin B3 (ng/g)	0.90	3.73 (02-01-2023)	6.08		10.8	≤10.8
Gliotoxin (ng/g)	3.02	66.44 (02-01-2023)	116.93		207.87	≤207.87
Mycophenolic Acid (ng/g)	3.16	3.16 (02-01-2023)	3.6		6.4	≤6.4
Ochratoxin A (OTA) (ng/g)	4.55	5.39 (02-01-2023)	3.83		6.8	≤6.8
Patulin (ng/g)	1.48	1.02 (02-01-2023)	6.53		11.6	≤11.6
Sterigmatocystin (STC) (ng/g)	0.21	0.30 (02-01-2023)	0.3		0.53	≤0.53
Zearalenone (ZEN) (ng/g)	0.19	0.19 (02-01-2023)	0.38		0.67	≤0.67

Trichothecenes

Test Name	Current	Previous	75th	Result	95th	Reference
Deoxynivalenol(DON) (ng/g)	7.37	29.03 (02-01-2023)	37.95		67.47	≤67.47

Trichothecenes

Test Name	Current	Previous	75th	Result	95th	Reference
Diacetoxyscirpenol (DAS) (ng/g)	0.22	0.32 (02-01-2023)	2.4		4.27	≤4.27
Nivalenol (NIV) (ng/g)	0.51	1.43 (02-01-2023)	1.8		3.2	≤3.2
Roridin A (ng/g)	4.44	7.48 (02-01-2023)	4.28		7.6	≤7.6
Roridin E (ng/g)	0.63	1.31 (02-01-2023)	0.75		1.33	≤1.33
Roridin L2 (ng/g)	0.74	0.29 (02-01-2023)	3.83		6.8	≤6.8
Satratoxin G (ng/g)	<0.05	0.09 (02-01-2023)	0.1		0.18	≤0.18
Satratoxin H (ng/g)	0.06	0.12 (02-01-2023)	0.1		0.18	≤0.18
T-2 Toxin (ng/g)	<0.05	0.06 (02-01-2023)	0.1		0.18	≤0.18
Verrucarin A (ng/g)	0.63	0.66 (02-01-2023)	0.75		1.33	≤1.33
Verrucarin J (ng/g)	6.21	6.32 (02-01-2023)	5.18		9.2	≤9.2



Risk and Limitations

This test has been developed and its performance characteristics determined by Vibrant America LLC., a CLIA and CAP certified lab. These assays have not been cleared or approved by the U.S. Food and Drug Administration.

Mycotoxins do not demonstrate absolute positive and negative predictive values for mold related illnesses. Clinical history must be incorporated into the diagnostic determination. Quantification of mycotoxins in urine is not FDA-recognized diagnostic indicator of mold exposure.

Mycotoxins testing is performed at Vibrant America, a CLIA certified laboratory and utilizes ISO-13485 developed technology. Vibrant America has effective procedures in place to protect against technical and operational problems. However, such problems may still occur. Examples include failure to obtain the result for a specific mycotoxin due to circumstances beyond Vibrant's control. Vibrant may re-test a sample in order to obtain these results but upon re-testing the results may still not be obtained. As with all medical laboratory testing, there is a small chance that the laboratory could report incorrect results. A tested individual may wish to pursue further testing to verify any results.

The information in this report is intended for educational purposes only. While every attempt has been made to provide current and accurate information, neither the author nor the publisher can be held accountable for any errors or omissions.

Vibrant Wellness makes no claims as to the diagnostic or therapeutic use of its tests or other informational materials. Vibrant Wellness reports and other information do not constitute medical advice and are not a substitute for professional medical advice. Please consult your healthcare practitioner for questions regarding test results, or before beginning any course of medication, supplementation or dietary changes.

SAMPLE