

Requisition #:	953448	Physician Name:	BIOMETRIX LABS (PTY) LTD.
Patient Name:		Date of Collection:	Jun 25, 2021
Date of Birth:	Feb 19, 1978	Time of Collection:	05:20 AM
Gender:	M	Print Date:	Aug 6, 2021
Specimen Id.:	953448-2		

Mycotox Profile

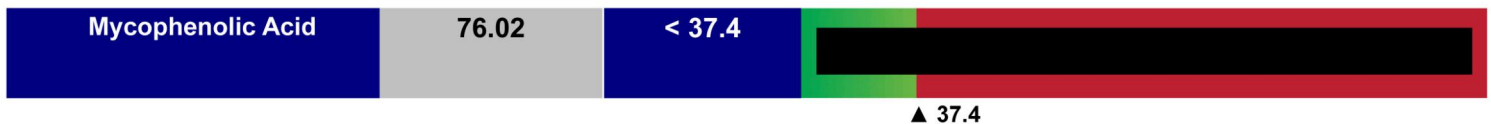
Creatinine Value: 77.01 mg/dl

Metabolite	Results (ng/g creatinine)	Normal Range *	Abnormal Range
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Aspergillus



Penicillium



* The normal range was calculated using the median + 2 times the standard deviation

Testing performed by The Great Plains Laboratory, Inc., Lenexa, Kansas. The Great Plains Laboratory has developed and determined the performance characteristics of this test. The test has not been evaluated by the U.S. Food and Drug Administration. The FDA does not currently regulate such testing.

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Stachybotrys



Fusarium



Chaetomium globosum

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Multiple Mold Species





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Ochratoxin:Ochratoxin A (OTA) is a nephrotoxic, immunotoxic, and carcinogenic mycotoxin. This chemical is produced by molds in the *Aspergillus* and *Penicillium* families. Exposure is done primarily through water damaged buildings. Minimal exposure can occur through contaminated foods such as cereals, grape juices, dairy, spices, wine, dried vine fruit, and coffee. Exposure to OTA can also come from inhalation exposure in water-damaged buildings. OTA can lead to kidney disease and adverse neurological effects. Studies have shown that OTA can lead to significant oxidative damage to multiple brain regions and is highly nephrotoxic. Dopamine levels in the brain of mice have been shown to be decreased after exposure to OTA. Some studies have hypothesized that OTA may contribute to the development of neurodegenerative diseases such as Alzheimer's and Parkinson's. Treatment should be aimed at removing the source of exposure. Agents such as oral cholestyramine, charcoal, and phenylalanine can help prevent the absorption of these toxins from food. Antioxidants such as vitamins A, E, C, NAC, rosmarinic acid, and liposomal glutathione alone or in combination have been shown to mitigate the oxidative effects of the toxin. Bentonite or zeolite clay is reported to reduce the absorption of multiple mycotoxins found in food, including OTA. Studies have also shown that OTA is present in sweat, which supports the use of sauna as a treatment to increase the excretion of OTA. Retesting is recommended after 3-6 months of treatment.

(PMID 17195275, 16293235, 27521635, 22069626, 24792326, 22253638, 16140385, 2467220, 16844142, 19148691, 22069658, 16019795, 18286403, 15781206, 11439224, 17092826, 32710148)

Citrinin (Dihydrocitrinone DHC): Citrinin (CTN) is a mycotoxin that is produced by the mold genera *Aspergillus*, *Penicillium*, and *Monascus*. CTN exposure can lead to nephropathy, because of its ability to increase permeability of mitochondrial membranes in the kidneys. The three most common exposure routes are through ingestion, inhalation, and skin contact. CTN has been shown to be carcinogenic in rat studies. Multiple studies have linked CTN exposure to a suppression of the immune response. Retesting is recommended after 3-6 months of treatment.

(PMID: 11567776, 24048364, 10788357)

BIOMETRIX

THE INSIDE INFO

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Mycophenolic Acid: Mycophenolic Acid (MPA) is an antifungal, antibacterial, and antiviral mycotoxin acid. It is produced by the Penicillium fungus. MPA is an immunosuppressant which inhibits the proliferation of B and T lymphocytes. MPA exposure can increase the risk of opportunistic infections such as clostridia and Candida. MPA is associated with miscarriage and congenital malformations when the woman is exposed in pregnancy. Retesting is recommended after 3-6 months of treatment. Mycophenolic acid is used as a pharmaceutical under the brand names CellCept, Myfortic and others. Mycophenolic acid cannot be used as a marker for mold if the person is taking the pharmaceutical.

(PMID: 858824, 28646113, 27809954, 27599910)