Glyphosate TEST

REQUISITION #	9900001	**COLLECTION TIME**	10:00 AM
PATIENT NAME	**Report Sample**	**COLLECTION DATE**	Mar 20, 2026
DATE OF BIRTH	Mar 9, 2021	**SAMPLE TYPE**	Urine
GENDER	F	**REPORT DATE**	Mar 31, 2026
PRACTITIONER	NO PHYISICIAN		

Color Key LOW MODERATE HIGH

Creatinine Value* : 100.00 mg/dl

METABOLITE	RESULTS	PERCENTILE
Parent	ug/g creatinine | DL - Detectable Limit | ULOQ - Upper Limit of Quantification	75% | 95%

Glyphosate - Urine

Glyphosate

Glyphosate is a broad-spectrum herbicide used in over 750 different products, ranging from agriculture and forestry to home use. Glyphosate is the world's most widely produced herbicide and a key ingredient in products like Roundup®. Glyphosate residues can be found in food and water, leading to exposure through consumption. Studies have shown that dietary intake is a significant source of glyphosate exposure, with higher levels detected in individuals consuming a conventional versus an organic diet. Glyphosate can be found in indoor dust, which can lead to exposure through inhalation or ingestion of contaminated dust particles. This route of exposure is relevant for both urban and rural settings.

Glyphosate has been classified as a "probable carcinogen" by the International Agency for Research on Cancer (IARC), particularly associated with non-Hodgkin lymphoma. Glyphosate alters the gut microbiome by reducing microbial diversity and disrupting beneficial bacteria. Glyphosate affects microbes through interference with key pathways, including the shikimate pathway which is essential for the synthesis of aromatic amino acids in plants, fungi, and many bacteria. Exposure to glyphosate also impairs microbial functions essential for digestion, immunity, and health. Evidence indicates glyphosate can have significant adverse effects on the brain and behavior, increasing the risk for serious neurological diseases such as Parkinson's disease and Alzheimer's disease. Glyphosate exposure can lead to significant metabolic alterations, including disruptions in lipid metabolism and glucose homeostasis, higher urinary concentrations of glyphosate have been associated with an increased risk of T2DM.

Glyphosate is rapidly metabolized in the body, with half-lives generally ranging from a few hours to about a day. Due to its high solubility in water glyphosate is readily absorbed across epithelial tissues, including the intestine, liver, and kidney. Higher urinary glyphosate levels are associated with increased biomarkers of liver dysfunction and renal injury. The best way to reduce exposure to glyphosate is to eat organic foods. Multiple studies have demonstrated that an organic diet significantly reduces urinary glyphosate levels. Other ways to reduce exposure are avoiding living in areas where glyphosate is sprayed especially during spray season, genetically modified organism (GMO) foods, and animal products from which GMO foods were used to feed the animal.

Testing for heavy metal exposure should be considered since the chelating properties of glyphosate can increase exposure to heavy metals by enhancing their mobility and bioavailability in various environmental contexts.

*Methodology: ELISA.Creatinine by Jaffe Reaction. * The creatinine test is performed to adjust metabolic marker results for differences in fluid intake. Urinary creatinine, from a random collection, has limited diagnostic value due to variability as a result of recent fluid intake.*

The results should be interpreted in conjunction with the complete clinical picture, given patient history and presentation, and at the discretion of the medical provider.

This test was developed and its performance characteristics determined by Mosaic Diagnostics Laboratory. It has not been cleared or approved by the US Food and Drug Administration, however, does comply with CLIA regulations for clinical use.

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