

PFAS CHEMICALS DEMO

Name: PFAS CHEMICALS 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)	PFAS Chemicals - P2	2023-09-13 12:04 (PDT)

INTRODUCTION

Vibrant Wellness is pleased to present to you, 'PFAS chemicals 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 PFAS chemicals Panel is a test to measure the levels of PFAS chemicals present in your urine. The panel is sub-grouped into Pesticides, Phthalates, Parabens, Acrylic, Alkyl phenols and Volatile Organic Compounds. Reference ranges for tests aggregated with ^ were determined based on NHANES data ([cdc.gov/nhanes](https://www.cdc.gov/nhanes)) if available and other reference ranges are established based on urine samples from 1000 apparently healthy individuals.

Methodology:

The Vibrant PFAS Chemicals panel uses tandem mass spectrometry methodology (LC-MS/MS) for quantitative detection of PFAS in urine samples. Urine creatinine is measured using a kinetic colorimetric assay based on the Jaffé method. All PFAS chemicals 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 PFAS chemicals whose levels are >95th percentile (Red) and 75th-95th percentile (Yellow) of reference range, normalized to Urine creatinine levels. Additionally, the previous value is also indicated for your referral (if available). Following this section is the complete list of the PFAS chemicals and their absolute levels normalized to Creatinine in a quartile format along with the reference ranges. These levels are shown with three shades of color – Green, Yellow and Red. The result in green corresponds to 0 to 75th percentile, the result in yellow corresponds to 75th to 95th percentile and the result in red corresponds to greater than 95th percentile of reference range. All content provided in the report is purely for informational purposes only and should not be considered medical advice. Any changes based on the information should be made in consultation with your healthcare provider.

The Vibrant Wellness platform provides tools for you to track and analyze your general wellness profile. Testing for the PFAS chemicals 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 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 healthcare provider 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 healthcare provider before making any changes.

PFAS

Test Name	Current	Previous	Result		Reference
	3.854		75th	95th	
GenX/HPFO-DA (ug/g)			<div><div></div></div>		≤6.689
POSSIBLE SOURCES Contaminated water, Fire ghting foam					
ASSOCIATED RISK Longer exposure GenX tends to cause regenerative anemia, cardiovascular diseases and also prone to cause liver injury. GenX shows thyroid disrupting effects in humans which can cause epigenetic alterations. Epigenetic modi cation is one of the hallmarks of ageing. Therefore, GenX can lead to age associated conditions in individuals. Sources of exposure: Contaminated water, Fire ghting foam.					
DETOX SUGGESTIONS Detoxi cation of GenX involves minimizing exposure by avoiding contaminated water and food, utilizing air puri cation, and supporting natural detox processes with hydration, antioxidant-rich diet, and exercise. Chelation therapy may be considered under medical supervision for elevated GenX levels, but further research is needed for optimal detox strategies					

Per uorobutanoic acid (PFBA) (ug/g)	0.094		<div><div></div></div>		≤0.113
POSSIBLE SOURCES Working in chemicals manufacturing and processing, Contaminated soil, Contaminated water, Personal care products, Cosmetics, Grease-resistant paper, Fast food containers or wrappers, Microwave popcorn bags.					
ASSOCIATED RISK Exposure to PFBA can cause peroxisome proliferation, peroxisomal fatty acid oxidation induction, and hepatomegaly. PFBA has the potential to generate oxidative stress and thereby induce DNA damage causing genomic instability. As genomic stability is the hallmark of ageing PFBA can cause age associated conditions.					
DETOX SUGGESTIONS To detoxify PFBA, individuals should prioritize reducing exposure by avoiding contaminated water, food, and products containing per uorinated compounds. Implementing air ltration systems can help minimize inhalation exposure. Supporting the body's natural detoxi cation mechanisms through adequate hydration, a balanced diet, and regular exercise may assist in eliminating PFBA.					

Per uorododecanoic acid (PFDoA) (ug/g)	1.167		<div><div></div></div>		≤1.769
POSSIBLE SOURCES Contaminated drinking water, furniture, carpets. Food packaging.					
ASSOCIATED RISK PFDoA has the potential to cause a disruption in the thyroid hormone system homeostasis. PFDoA has an endocrine-disrupting potential by interfering with thyroid hormone (TH) and aryl hydrocarbon receptor (AhR) functions, which need to be taken into consideration when assessing the impact on human health. These key events cause epigenetic modi cations, which are the hallmark of aging. As a result, PFDoA toxicity is a causative agent for age-related conditions.					
DETOX SUGGESTIONS To detoxify PFDoA, individuals should aim to limit exposure by avoiding contaminated water, food, and products containing per uorinated compounds. Utilizing air ltration systems can help reduce inhalation exposure. Supporting the body's natural detoxi cation mechanisms through hydration, a nutrient-rich diet, and regular physical activity may aid in eliminating PFDoA.					

PFAS

Test Name	Current	Previous	Result	Reference
Per uorohexanoic acid (PFHxA) (ug/g)	0.039		<div><div></div><div></div><div></div></div>	≤0.156

POSSIBLE SOURCES

Contaminated soil, water, air, agricultural crops, household dust, stain-resistant fabrics, paper food packaging, carpets.

ASSOCIATED RISK

PFHxA exhibits a well-documented persistence in the environment, and its presence has been linked to potential associations with Gilbert Syndrome, a mild genetic liver disorder characterized by the impaired processing of bilirubin within the body. It is important to note that per uorinated compounds like PFHxA are generally not considered to be acutely toxic at the cellular level.

DETOX SUGGESTIONS

Detoxi cation of PFHxA involves reducing exposure by avoiding contaminated water, food, and consumer products, as well as implementing air ltration in polluted areas. Additionally, supporting the body's natural detoxi cation processes through hydration, a nutrient-rich diet, and regular exercise may aid in eliminating PFHxA. However, speci c detox methods tailored to PFHxA are still under investigation, necessitating further research for effective strategies.

Per uorooctanoic acid (PFOA) (ug/g)	0.990		<div><div></div><div></div><div></div></div>	≤2.205
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POSSIBLE SOURCES

Sources of exposure to per uorooctanoic acid (PFOA) include contaminated drinking water, non-stick cookware, kitchen utensils, sealants, tapes, waterproof textiles, dental oss, leather goods, upholstered furniture, carpets, and rugs. Groundwater contamination can occur near sewage treatment plants, industrial sites, land lls, and locations where PFOA is used in re ghting foam. Additionally, sh and shell sh can accumulate PFOA from contaminated water, potentially impacting the food chain.

ASSOCIATED RISK

PFOA is a suspected endocrine disruptor and a common environmental pollutant. PFOA exposure may lead to a variety of adverse effects, including hepatotoxicity, immunotoxicity, and developmental toxicity. PFOA can stimulate cell migration and invasion, showing its potential to induce neoplastic transformation of human breast epithelial cells. Symptoms of PFOA are likely to be conditions like thyroid disease, high cholesterol, ulcerative colitis, pregnancy-induced hypertension, changes in liver function and reduced immune response. Severity of PFOA exposure can lead to cancers especially kidney, testicular, and thyroid cancer .

DETOX SUGGESTIONS

Regular administration of cholestyramine (CSM) resulted in the gastrointestinal elimination of different PFAS, including PFOA leading to a subsequent decrease in serum levels of all PFAS. However, additional investigation is necessary to grasp thoroughly the e cacy and safety of utilizing CSM therapy for detoxifying PFAS.

PFAS					
Test Name	Current	Previous	Result		Reference
Per fluoropentanoic acid (PFPeA) (ug/g)	0.692		75th	95th	
					≤0.731

POSSIBLE SOURCES
Contaminated water, re- ghting foam, stain repellents, paints, and coatings.

ASSOCIATED RISK
PFPeA can cause serious health effects, including cancer, endocrine disruption, accelerated puberty, liver dysfunction, immune system damage, and thyroid changes. Further, it shows thyroid disrupting effects in humans which can cause epigenetic alterations. Epigenetic modi cation is one of the hallmarks of ageing. Therefore, PFPeA can lead to age associated conditions in individuals.

DETOX SUGGESTIONS
Detoxi cation of PFPeA entails minimizing exposure by avoiding contaminated water and food sources, employing air puri cation, and supporting natural detoxi cation with hydration, a balanced diet, and exercise. Chelation therapy may be considered under medical supervision for individuals with elevated PFPeA levels.

Creatinine

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

PFAS Chemicals

PFAS

Test Name	Current	Previous	75th	Result	95th	Reference
GenX/HPFO-DA (ug/g)	3.854		1.045		6.689	≤6.689
9-chlorohexadeca uoro-3-oxanonane-1-sulfonate (ug/g)	0.155		0.472		2.75	≤2.75
Dodeca uoro-3H-4,8-dioxanoate (NaDONA) (ug/g)	<0.005		0.372		1.916	≤1.916
Per uoro-[1,2-13C2] octanoic acid (M2PFOA) (ug/g)	<0.005		0.45		2.054	≤2.054
Per uoro-1-[1,2,3,4-13C4] octanesulfonic acid (ug/g)	0.035		0.645		2.68	≤2.68
Per uoro-1-heptane sulfonic acid (PFHpS) (ug/g)	0.068		0.628		3.783	≤3.783
Per uoro-n-[1,2-13C2] decanoic acid (MPFDA) (ug/g)	<0.005		0.94		2.907	≤2.907
Per uoro-n-[1,2-13C2] hexanoic acid (ug/g)	0.007		0.091		0.325	≤0.325
Per uorobutanoic acid (PFBA) (ug/g)	0.094		0.066		0.113	≤0.113
Per uorodecanoic acid (PFDeA) (ug/g)	0.126		0.696		2.399	≤2.399
Per uorododecanoic acid (PFDoA) (ug/g)	1.167		0.54		1.769	≤1.769
Per uoroheptanoic acid (PFHpA) (ug/g)	0.014		0.106		0.142	≤0.142
Per uorohexane Sulfonic Acid (PFHxS) (ug/g)	0.096		0.113		1.681	≤1.681
Per uorohexanoic acid (PFHxA) (ug/g)	0.039		0.01		0.156	≤0.156
Per uorononanoic acid (PFNA) (ug/g)	0.185		0.652		1.31	≤1.31
Per uorooctane sulfonic acid (PFOS) (ug/g)	0.053		0.658		3.215	≤3.215
Per uorooctanoic acid (PFOA) (ug/g)	0.990		0.568		2.205	≤2.205
Per uoropentanoic acid (PFPeA) (ug/g)	0.692		0.193		0.731	≤0.731
Per uorotetradecanoic acid (PFTeDA) (ug/g)	0.811		1.478		4.912	≤4.912
Per uorotridecanoic acid (PFTrDA) (ug/g)	0.186		1.263		3.96	≤3.96
Per uoroundecanoic acid (PFUnA) (ug/g)	0.349		0.695		1.267	≤1.267

Risk and Limitations

This test has been developed and its performance characteristics determined and validated by Vibrant America LLC., a CLIA certified lab. These assays have not been cleared or approved by the U.S. Food and Drug Administration. Vibrant Wellness provides additional contextual information on these tests and provides the report in more descriptive fashion.

PFAS chemicals panel does not demonstrate absolute positive and negative predictive values for any condition. Its clinical utility has not been fully established. Clinical history and current symptoms of the individual must be considered by the healthcare provider prior to any interventions. Test results should be used as one component of a healthcare provider's clinical assessment.

PFAS chemicals panel testing is performed at Vibrant America, a CLIA certified laboratory. 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 test due to circumstances beyond Vibrant's control. Vibrant may re-test a sample 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. Tested individuals may find their experience is not consistent with Vibrant's selected peer reviewed scientific research findings of relative improvement for study groups. The science in this area is still developing and many personal health factors affect diet and health. Since subjects in the scientific studies referenced in this report may have had personal health and other factors different from those of tested individuals, results from these studies may not be representative of the results experienced by tested individuals. Further, some recommendations may or may not be attainable, depending on the tested individual's physical ability or other personal health factors. A limitation of this testing is that many of these scientific studies may have been performed in selected populations only. The interpretations and recommendations are done in the context of these studies, but the results may or may not be relevant to tested individuals of different or mixed ethnicities.

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