

Chronic Inflammatory Panel

Final Report Date:	03-15-2021 18:10	Specimen Collected:	03-14-2021 18:10
Accession ID:	2103150004	Specimen Received:	03-15-2021 12:10

LAST NAME	FIRST NAME	GENDER	DATE OF BIRTH	ACCESSION ID	DATE OF SERVICE
REPORT	DEMO	MALE	1998-10-02	2103150004	03-14-2021 18:10

PATIENT

Name: DEMO REPORT
Date of Birth: 1998-10-02
Gender: Male
Age: 22

Fasting: FASTING

PROVIDER

Practice Name: Vibrant IT4 Practice
Provider Name: Demo Client, DDD (999994)
Street Address: TEST STREET
City: TEST CITY
State: KY
Zip #: 42437
Telephone #:
Fax #: 000-000-0000
Phlebotomist: 607

Vibrant Wellness is pleased to present to you, 'Chronic Inflammatory 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 Chronic Inflammation Panel is a test to measure levels of various inflammatory markers present in an individual's body. The panel is designed to give a complete picture of these markers enabling a good overview of the inflammatory status.

Interpretation of Report: The markers on the report are organized as multiple tables under different subheadings under Inflammation, hormones and bleeding associated markers. A separate table also indicated the 25-Oh Vitamin D levels. The current and previous levels of the markers are then indicated along with the corresponding reference range and comments associated with the markers. The level of the marker has a green, yellow or red highlight around the cell indicating – Mild, Moderate or High levels in comparison to our reference population. 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 provided 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 food additives 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 for medication, treatment, diet, exercise or lifestyle management as appropriate. This product is not intended to diagnose, treat, or cure any disease or condition.

Note - Pediatric ranges have not been established for this test. To schedule an appointment with Vibrant Clinical Dietitians please call: Toll-Free 866-364-0963.

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Inflammation and Associated Markers

Test Name	Current	Previous (02/15/2021)	Reference Range
VEGF (pg/ml)	88.1	95.1	31.0~86.0
VIP (pg/ml)	66.1	65.1	23.0~63.0
TGF-B1 (ng/ml)	6.5	9.5	≤2.4
MMP9 (ng/ml)	337.1	341.1	85.0~332.0
C3a (ng/ml)	509.1	510.1	55.0~500.0
C4a (µg/ml)	10.6	14.6	≤2.8

Comments

VEGF

Vascular Endothelial Growth Factor is a signal protein that stimulates growth of new blood vessels in order to supply oxygen to the tissues when blood circulation is not sufficient. Decreased blood flow in capillaries and resulting low oxygen supply will stimulate the release of Hypoxia-Inducible Factor (HIF) which in turn increases production of VEGF and erythropoietin (EPO). While VEGF increases blood flow by creating new blood vessels, EPO increases production of red blood cells which can enhance oxygen supply.

VIP

Vasoactive intestinal polypeptide (VIP) is a 28 amino acid long peptide that has a variety of functions including vasodilation, heart contraction, lowering blood pressure etc. It is a potent anti inflammatory since its has effects on both the innate and adaptive immune systems. This peptide inhibits the production of inflammatory cytokines and chemokines from macrophages, microglia and dendritic cells which are part of the innate immune system. The reduced expression of co-stimulatory molecules on antigen-presenting cells, and therefore reduced stimulation of antigen-specific CD4 T-cells has also been observed. Th2-type responses are favored over Th1-type responses by VIP. VIP and its analogs have been proposed as promising alternative candidates to existing therapies for the treatment of acute and chronic inflammatory and autoimmune diseases. The intranasal route of administration of VIP has also been shown to be delivered successfully to the brain in animal models.

TGF-B1

TGF beta-1 is a molecule that is involved in the production or suppression of inflammation. People with asthma, multiple sclerosis, and various autoimmune diseases often have elevated levels of TGF beta-1 indicating an overacting immune response. The elevated levels of TGF beta-1 could damage T-regulatory cell functions that control or prevent autoimmunity, leaving the person at risk for autoimmune-related illness.

MMP9

Matrix Metalloproteinase 9 (MMP-9) is an enzyme under the zinc metalloproteinases family involved in the breakdown of extracellular matrices. Cytokines trigger certain types of white blood cells to release MMP-9 into the bloodstream, increasing the amount of inflammatory compounds moving into tissues leading to widespread inflammation.

C3a

Complement 3 cleaves into two proteins C3a and C3b, both of which have important roles in our immune system. C3a is an effector of the complement system with a range of functions including macrophage and T cell activation, mast cell degranulation etc. C3a could cause vasoconstriction and hypertension and this has been showcased in mouse models. C3a, C4a are also commonly referred to as anaphylatoxins which means they can cause smooth muscle to contract, dilate and also enable vascular permeability. They cause a local inflammatory response by degranulation of mast cells and endothelial cells.

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C4a

Split proteins from complements such as C3a and C4a have been shown to be elevated for a variety of conditions including acute lyme disease. Higher-than-normal complement C4 values are a marker of inflammation in general but it also been found elevated in ulcerative colitis and some cancers. C3a, C4a are also commonly referred to as anaphylatoxins which means they can cause smooth muscle to contract, dilate and also enable vascular permeability. They cause a local inflammatory response by degranulation of mast cells and endothelial cells.

Hormones and Associated Markers

Test Name	Current	Previous (02/15/2021)	Reference Range
ADH (pg/ml)	14.4	17.4	1.0~13.3
ACTH (pg/ml)	45.1	44.1	8.0~37.0
MSH (pg/ml)	82.1	89.1	35.0~81.0

Comments

ADH

Anti-Diuretic Hormone is a hormone made in the hypothalamus that controls the body's ability to hold on to free water. Osmolality is the concentration of all chemical particles (such as sodium, potassium, and calcium) that are in the fluid part of blood (serum). A lack of regulation of salt and water balance is apparent when ADH is low (or too high) but osmolality is relatively high (or too low)

ACTH

Adrenocorticotrophic Hormone (ACTH) is a regulatory hormone released by the pituitary gland to signal the adrenal glands to produce cortisol. Cortisol produced by adrenal glands and is involved in several processes in the body important for homeostasis and most importantly to the physical response to stress. Higher quantities of cortisol are released when you are stressed or your immune system requires more support.

MSH

MSH is a peptide hormone made in the pituitary gland that plays a crucial role in regulating many other hormones, inflammation responses, and defenses against foreign microbes. Leptin influences MSH production, neurons in the hypothalamus also produce MSH in response to leptin, however inflammation where excess cytokines could interfere with leptin receptors may lead to drops in MSH levels. Low MSH could increase susceptibility to insomnia, chronic diseases and other hormonal abnormalities.

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Bleeding Associated Markers

Test Name	Current	Previous (02/15/2021)	Reference Range
PAI-1 (ng/ml)	54.1	54.1	2.0~50.0
Anticardiolipins (units)	1.1	>3.8	≤1.0
von Willebrand's profile (IU/dL)	203.1	204.1	50.0~200.0

Comments

PAI-1

Plasminogen Activator Inhibitor-1 (PAI-1), Anti-cardiolipin Antibodies (ACA), and Von Willebrand Factor are biomarkers for abnormal bleeding conditions. ACA are antibodies that target our own tissues by interfering with the phospholipid proteins in cell membranes. ACA are elevated in connective tissue disorders such as scleroderma and lupus. Together, the combination of PAI-1 and ACA strongly increases the risk of stroke, heart attack, and deep vein thrombosis (DVT).

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von Willebrand's profile

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This test has been developed and its performance characteristics determined 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 Chronic Inflammatory 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 physician's clinical assessment.

Chronic Inflammatory Panel 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 toxin 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 the giving of medical advice and are not a substitute for a professional healthcare practitioner. Please consult your provider for questions regarding test results, or before beginning any course of medication, supplementation, or dietary/lifestyle changes. Users should not disregard, or delay in obtaining, medical advice for any medical condition they may have, and should seek the assistance of their health care professionals for any such conditions.