

Total Tox Burden Panel



Which Patients Need the Total Tox Burden Panel?

Conditions and Symptoms Associated with Toxic Burden Include:

- Fatigue and weakness
- Chronic burning in the throat and nasal passages
- Coughing, wheezing, shortness of breath
- Loss of balance
- Depression and/or anxiety
- Dizziness
- Eye irritation or tearing
- Headache, light sensitivity
- Hearing loss
- Heightened sensitivity to chemicals and foods
- Irregular heartbeat
- Morning stiffness and/or joint pain
- Mood swings
- Muscle weakness
- Skin rashes
- Sleep problems
- Vision changes
- Poor memory, difficulty finding words
- Difficulty concentrating
- Unusual skin sensations, tingling and numbness
- Increased urinary frequency or increased thirst
- Abdominal pain, diarrhea, and/or bloating
- Disorientation
- Metallic taste in mouth
- Static shocks



Facts About Toxic Burden and Toxic Exposures

- ✓ Environmental toxins and toxicants are inflammatory substances, cancer-causing chemicals, and endocrine disruptors
- ✓ They can be human-made, produced by microbes, or naturally occurring in the earth
- ✓ Susceptibility to toxic overload varies person-to-person, and can be affected by a variety of factors including:
 - Genetics
 - Environment
 - Diet
 - Liver and kidney health
 - Microbiome composition and diversity
 - Age
 - Adiposity
 - Gender
 - Lifestyle
 - Immune system capacity





Clinical Connections

- ✓ The Vibrant Total Tox Burden panel uses the most advanced mass spectrometry method to measure 89 different markers to assess toxic burden in one simple urine specimen
- ✓ Consider the Total Tox Burden panel in conjunction with NutriPro to assess levels of nutrients such as antioxidants and cellular health, and the associated genes that may predispose a patient to greater risk for toxic burden and oxidative stress



What Does the Total Tox Burden Panel Include?

Environmental Toxins and Toxicants	
Category	Includes
Organochlorine pesticides	2,4-Dichlorophenoxyacetic Acid, (2,4-D) Perchlorate, DDA
Organophosphate pesticides	Diethyldithiophosphate (DEDTP), Dimethyldithiophosphate (DMDTP), Diethylthiophosphate (DETP), Dimethylphosphate (DMP), Diethylphosphate (DEP), Dimethylthiophosphate (DMTP), Atrazine, Atrazine mercapturate
Other pesticides/herbicides	Glyphosate, 3-Phenoxybenzoic Acid (3PBA)
Alkylphenols	Bisphenol A (BPA), Triclosan, 4-Nonylphenol
Volatile Organic Compounds (VOCs)	2-Methylhippuric Acid (2MHA), 3-Methylhippuric Acid (3MHA), 4-Methylhippuric Acid (4MHA), 2-Hydroxyisobutyric Acid (2HIB), Phenylglyoxylic Acid (PGO), N-acetyl phenyl cysteine (NAP)
Plasticizers/Preservatives	Phthalate Metabolites: Monoethyl Phthalate (MEP), Mono-2-ethylhexyl phthalate (MEHP), Mono-(2-ethyl-5-hydroxyhexyl) phthalate (MEHHP), Mono-(2-ethyl-5-oxohexyl) phthalate (MEOHP), Mono-ethyl phthalate (MEtP) Parabens: Methylparaben, Propylparaben, Butylparaben, Ethylparaben Acrylic Metabolites: N-acetyl-S-(2-carbamoylethyl)-cysteine (NAE), N-Acetyl (2-Cyanoethyl) Cysteine (NACE) Other Metabolites: N-Acetyl (2-Hydroxypropyl) Cysteine (NAHP), N-Acetyl (3,4-Dihydroxybutyl) Cysteine (NADB), 2-Hydroxyethyl Mercapturic Acid (HEMA), N-Acetyl Propyl Cysteine (NAPR), Diphenyl Phosphate (DPP), Tiglylglycine (TG)
Mycotoxins	
Category	Includes
Trichothecenes	Roridin E, Verrucarin A, Deoxynivalenol (Vomitoxin/DON), Nivalenol (NIV), Diacetoxyscirpenol (DAS), T-2 toxin, Satratoxin G, Satratoxin H, Isosatratoxin F, Roridin A, Roridin H, Roridin L-2, Verrucarin J
Aflatoxin	Aflatoxin M1, Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2
Other	Gliotoxin, Ochratoxin A, Zearalenone, Enniatin B1, Sterigmatocystin, Fumonisin B1, Fumonisin B2, Fumonisin B3, Citrinin, Patulin, Mycophenolic Acid, Dihydrocortisone, Chaetoglobosin A
Heavy Metals	
Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Cesium, Gadolinium, Lead	Mercury, Nickel, Palladium, Platinum, Tellurium, Thallium, Thorium, Tin, Tungsten, Uranium

Regulatory Statement

The general wellness test intended uses relate to sustaining or offering general improvement to functions associated with a general state of health while making reference to diseases or conditions. This test has been laboratory developed and its performance characteristics determined by Vibrant Genomics LLC, a CLIA-certified laboratory performing the test. The test has not been cleared or approved by the U.S. Food and Drug Administration (FDA). Although FDA does not currently clear or approve laboratory-developed tests in the U.S., certification of the laboratory is required under CLIA to ensure the quality and validity of the tests.