

Neurologic & Mental Health

Uncovering Powerful Insights



Many neurologic and mental health patients don't fit neatly into a single diagnosis. Brain fog, anxiety, headaches, behavioral shifts, and fatigue frequently co-occur — and conventional workups can come back unremarkable. ^[11,12] When symptoms fluctuate with environment, diet, or occupational exposures, environmental toxicant burden may be a missing piece of the clinical picture. ^[4,6,10]



When Might Providers Consider the TOXDetect Profile

Brain fog, poor concentration, or memory lapses

— especially if fluctuating or linked to certain environments or exposures ^[11,12]

Anxiety, low mood, irritability, or behavioral dysregulation — with or without a clear psychiatric driver ^[2,3,11]

Headaches, light/odor sensitivity, or dizziness — worsened by fumes, renovations, or pest treatments ^[4,5,7]

Tremor, coordination issues, or paresthesias — when occupational or household exposure is plausible ^[6,9,13]

Multisystem symptom clusters — fatigue + cognition + mood — with no clear unifying diagnosis ^[10,11,12]

Neurodevelopmental concerns — attention, behavior, or learning — in children with known or suspected exposure history ^[1,2,7,8,14,15]

What the TOXDetect Profile Measures

Analyte Class	Everyday Exposure Sources	Neurologic Relevance
Phthalates & Bisphenols	Plastics, food packaging, personal care products ^[1,2,3]	Neurodevelopment, mood, behavior ^[1,2,3]
Parabens	Personal care products, processed foods, medications ^[14,15,16]	Neurodevelopment, cognition, behavior ^[14,15,16]
VOCs/Solvents	Cleaning products, renovation materials, traffic fumes ^[4,5]	Cognition, headache, sensory symptoms ^[4,5]
Organophosphate & Pyrethroid Pesticides	Lawn care, agriculture, pest control ^[6,7,8]	Cognition, neurodevelopment, motor function ^[6,7,8]
Acrylamide	Processed/high-heat foods ^[9]	Motor and peripheral neurologic function ^[9]
Perchlorate	Drinking water, some produce ^[10]	Thyroid disruption - mood and cognition ^[10]

Related Conditions

Condition	Clinical Encapsulation
Neurodevelopmental Conditions (ADHD, autism, learning)	Phthalates, bisphenols, parabens, and pesticides have been associated with attention, behavior, and learning outcomes in multiple cohort studies, making exposure assessment a relevant layer in neurodevelopmental workups. ^[1,2,7,8,11,12,14,15]
Cognitive Dysfunction (brain fog, executive function, memory)	VOC/solvent exposure, organophosphates, acrylamide, and parabens have been linked to impaired cognition and executive function through mechanisms including cholinergic disruption, oxidative stress, and neuroinflammation. ^[4,5,6,9,12,14]
Depression / Anxiety	Bisphenols, phthalates, and endocrine-disrupting chemicals have been associated with internalizing symptoms and mood dysregulation, particularly through altered neurotransmission, hormonal signaling, and stress-response biology. ^[2,3,4,11]
Parkinson's Disease / Parkinsonian Patterns	Oxidative stress, mitochondrial dysfunction, and cholinergic pathway disruption from organophosphate and broader pesticide exposures have been discussed as contributors within an exposure-aware neurodegenerative clinical picture. ^[6,13]
Alzheimer's Disease / Dementia-Related Patterns	Organophosphate exposure literature raises concern for neurodegeneration through oxidative stress and changes in nerves signaling related to memory and attention, supporting toxicant exposure assessment as a contextual consideration in cognitive decline workups. ^[6,13]
Fatigue / Neuroimmune Overlap	Fatigue is frequently reported within broader neurobehavioral and solvent-related symptom clusters, and perchlorate-related thyroid disruption may contribute to cognitive and mood-associated fatigue through downstream hormonal effects. ^[4,5,10]

How the TOXDetect Profile Supports Clinical Reasoning

Adds exposure context When the standard workup is incomplete or inconclusive ^[11,12]	Supports hypothesis generation About environmental contributors to symptom burden ^[4,6,11]	Identifies chemical classes Linked to neuro-development, mood, cognition, and neuro-logic function in the scientific literature ^[1,2,6,9,14]	Guides clinical reasoning Especially when symptoms cluster, fluctuate, or have a plausible environmental trigger ^[4,5,11,12]
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This document is intended for licensed healthcare professionals and is for informational and educational purposes only. TOXDetect Profile results are not intended to diagnose, treat, cure, or prevent any disease. All clinical interpretation should be made by a qualified healthcare provider in the context of the individual patient. Statements regarding associations between toxicant exposure and health conditions are based on published literature and do not constitute diagnostic claims. Not a substitute for clinical judgment

References

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