FunctionalDX

Blood tests with a difference

Brain Check

Identify Potential Risks

Advanced brain health profile

+100 bio markers including: Homocysteine, liver, hormones, sex hormones, thyroid, blood sugar, vitamin/mineral/electrolytes imbalances, metabolic, toxicity & inflammatory markers

Why Brain Check?

Issues affecting cognitive performance including Alzheimer's and dementia have now become the UK's number one cause of death. With over 100 biomarkers tested, Brain Check identifies and helps to prevent your potential risks..

Test Brain Check If you experience:

- Brain fog, forgetfulness, reduction in memory & aspects of cognitive function
- Poor motivation, depression, anxiety, insomnia, irritability, tremors,
- Gastrointestinal complaints such as constipation that do not resolve with the usual support, addiction, headaches
- Potential genetic predisposition

Reduced cognitive function not only impacts one's current quality of life but can be a sign of progressive and life-threatening conditions such as Alzheimer's disease, Parkinson's and Dementia. Identifying your potential risk has become more important than ever before. Gauge your cognitive functions by taking this advanced comprehensive assessment using blood chemistry and reduce your associated risk of onset. Brain Check assesses your mental health status by identifying the markers associated with depression, anxiety, ADHD and any kind of personality disorder. Empower yourself today and test for potential dysfunctions.

Brain check covers an array of Biomarkers including:

- **Homocysteine levels / Inflammatory Markers.** Blood plasma levels have been identified as a risk factor for and a predictor of Alzheimer's disease, Inflammation worsens depression and affects cognitive functions.
- **Hormone & Sex Hormones.** Research suggests that changes in Estrogen and Estradiol levels can increase the risk of Alzheimer's.
- **Minerals/ Vitamins/Electrolytes.** Imbalances including B12, Zinc, Folic Acid, iron Magnesium and more.
- **Thyroid and sugar.** These could be underlying factors to a decline in cognitive health causing oxidative stress.
- **Toxin levels.** Heavy metal toxins such as aluminium have been shown to negatively impact cognitive functions.
- **Liver Markers.** Poor detoxification can be an underlying cause for the onset of such conditions.

BIOMARKERS List:

Homocysteine
Homocysteine

Inflammation
CRP, ESR, Fibrinogen, HsCRP, Ferritin, Lipid Profiles, LDH

Hormones including Sex Hormones
DHEA-S, Estradiol E2, Progesterone, Sex Hormone Binding Globulin, Testosterone, Parathyroid, Leptin,

Minerals, Electrolytes & Vitamins
Serum Magnesium, Red Cell Magnesium, Phosphorus, Potassium, Sodium, Aluminium, Zinc, Selenium Copper, Ceruloplasmin, Iron, Ferritin, Bicarbonate, Chloride, Vitamin D3, Folate, Serum B12, Active B12,

Thyroid
TSH, TT4. fT4, TT3, fT3, rT3, Thyroid ratios

Sugar Markers
Glucose (Fasting), HbA1C, Fructosamine, C-Peptide, Insulin

Liver Markers
ALP, ALT, AST, Bilirubin Total Direct and Indirect, LDH, GGT

Lipids
Total Cholesterol, HDL, LDL, VLDL, Ratios, Apolipoprotein A1 & B

Toxicity

Metabolic Health

Comprehensive Iron Panel

Plus more than 40 other health markers

References:

Allergy (Food allergy is associated with depression and psychological distress: A web-based study in 11,876 Japanese - **https://www.ncbi.nlm.nih.gov/pubmed/30408639**),

Deaths registered in England and Wales 2017 (**https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsregisteredinenglandandwalesseriesdr/2017**).

Depressed gut (Depressed gut? The microbiota-diet-inflammation trialogue in depression –**https://www.ncbi.nlm.nih.gov/pubmed/28654462**)

Gut dysbiosis (Microbiota-gut-brain axis and the central nervous system **https://www.ncbi.nlm.nih.gov/pubmed/28881854**).

Hormonal imbalances (Increased estradiol and improved sleep, but not hot flashes, predict enhanced mood during the menopausal transition. **https://www.ncbi.nlm.nih.gov/pubmed/21525161**)

Inflammation (Imaging the Role of Inflammation in Mood and Anxiety-related Disorders. **https://www.ncbi.nlm.nih.gov/pubmed/29173175**),

Infections (Depression as an evolutionary strategy for defense against infection - **https://www.ncbi.nlm.nih.gov/pubmed/23261774**)

(Inflammation: depression fans the flames and feasts on the heat.

https://www.ncbi.nlm.nih.gov/pubmed/26357876)

(Inflammation and Oxidative Stress: The Molecular Connectivity between Insulin Resistance, Obesity, and Alzheimer's Disease. **https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4674598/**)

Micronutrient deficiencies (So depression is an inflammatory disease, but where does the inflammation come from? - **https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3846682/**)

(The size, burden and cost of disorders of the brain in the UK **https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3778981/**).

Treatment of Depression (Treatment of depression: time to consider folic acid and vitamin B12) **https://www.ncbi.nlm.nih.gov/pubmed/15671130**)

(Zinc in the Monoaminergic Theory of Depression: Its Relationship to Neural Plasticity **https://www.ncbi.nlm.nih.gov/pubmed/28299207**)