

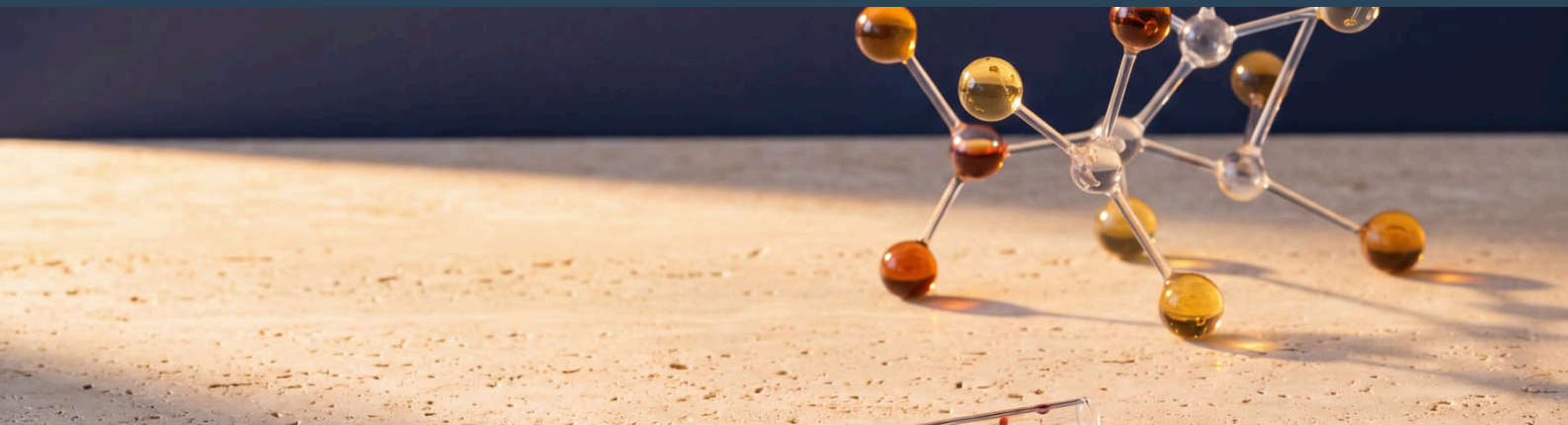
FACT SHEET

Metabolic Resilience

One blood sample. A deeper view of metabolic health and future disease risk.

Blood-based metabolomic profiling that combines molecular biomarkers with structured risk assessment and metabolic-health insights in a single analysis.

SAMPLE Finger-prick blood sample, collected at home or in clinic.



~30

established blood markers in the base analysis

108

metabolic biomarkers with the metabolomics add-on

1

dried blood sample for the test and both add-ons

WHY

Metabolic health takes more than standard blood markers

Standard blood tests give a valuable snapshot, but metabolic biology has many dimensions. Metabolic Resilience combines detailed molecular measurements with risk and metabolic-health outputs, for a broader picture of metabolic physiology today and health risk ahead.

01 10-year chronic-disease risk - Heart attack - Cardiovascular disease - Type 2 diabetes - Liver fibrosis and cirrhosis - Chronic kidney disease - Alcohol-related liver disease - COPD - Lung cancer	02 Metabolic health - Metabolic Age - Metabolic Resilience Score - Lipid metabolism - Fatty acid balance - Glucose metabolism - Amino acid metabolism - Chronic inflammation	03 Molecular biomarkers - Lipids & lipoproteins - Apolipoproteins - Fatty acids - Amino acids - Glucose metabolism - Inflammation (GlycA) - Organ-related markers
---	--	---

WHAT IS MEASURED

One sample. Many dimensions of metabolic biology.

The base analysis includes around 30 established blood markers of clinical quality, from one self-collected dried blood sample. The same sample can be extended with the add-ons below.

LIPIDS & LIPOPROTEINS LDL-C, HDL-C, total cholesterol, VLDL-C, total triglycerides, ApoB, ApoA1 and the ApoB/ApoA1 ratio.	FATTY ACIDS Total fatty acids, and omega-3, omega-6, DHA, MUFA, PUFA, SFA and linoleic acid as a percentage of the total.
AMINO ACIDS Branched-chain amino acids, alanine, glycine, histidine, isoleucine, leucine, tyrosine and valine.	GLUCOSE METABOLISM Glucose and related metabolic signals.
INFLAMMATION GlycA, an inflammation-related metabolic marker.	ORGAN-RELATED MARKERS Creatinine, eGFR and albumin.

WHAT YOU GET

From molecular data to a clearer metabolic picture

For the patient ● 10-year risk estimates for eight chronic diseases, as low, elevated or high, taking age and sex into account ● Metabolic Age ● Metabolic Resilience Score ● A detailed metabolic biomarker profile ● A baseline to return to over time	For the clinician ● Broader metabolic context than isolated markers ● Structured risk information to support follow-up ● Detailed lipid, fatty-acid, amino-acid and inflammatory data ● Optional add-ons for deeper metabolomic and brain-focused protein data from the same sample ● Data to read alongside history, lifestyle and other findings ● A basis for longitudinal reassessment
---	---

Two add-ons, measured on the same sample

One dried blood sample can give up to three layers of insight: the Metabolic Resilience analysis, plus one or two optional add-ons. No extra sample, clinic visit or venous blood draw is needed.

ADD-ON 1 · METABOLOMICS

Extended metabolomics panel

Extends the analysis to 108 metabolic biomarkers from the same dried blood sample: lipids, lipoproteins, fatty acids, amino acids, ketone bodies, inflammation and fluid balance. Available only together with Metabolic Resilience.

- 108 biomarkers in 16 categories
- Cholesterol, total lipids and triglycerides across 14 lipoprotein subclasses
- Fatty-acid ratios, amino acids, ketone bodies and GlycA
- HbA1c available as an extra service

ADD-ON 2 · PROTEOMICS

Neuro protein panel

A proteomics panel for brain health and neurodegeneration research, measured on the same dried blood sample. It adds a protein layer on top of the metabolic data.

- Alzheimer's disease research, built on core central nervous system (CNS) biomarkers
- Broad coverage of tau isoforms: 12 assays across brain-derived and peripheral measures
- In-depth protein profiling for Parkinson's disease research
- Markers studied in non-Alzheimer dementias, ALS, multiple sclerosis, glioma and brain injury
- Molecular links between vascular health and brain health
- Very high analytical sensitivity, with a high detection rate also in people without symptoms
- Optional, with or without the metabolomics panel

The neuro protein panel does not diagnose, predict or exclude Alzheimer's disease, Parkinson's disease, dementia or any other neurological condition.

All 108 biomarkers in the extended metabolomics panel

CATEGORY	BIOMARKERS	NO.	UNIT
Lipoprotein subclasses	Cholesterol, total lipids and triglycerides in 14 subclasses: VLDL (5), IDL, LDL (3), HDL (4)	42	mmol/L
Fatty acids	Total, degree of unsaturation, omega-3, omega-6, PUFA, MUFA, SFA, linoleic acid, DHA	9	mmol/L, degree
Fatty-acid ratios	Omega-3, omega-6, PUFA, MUFA, SFA, LA and DHA as % of total; PUFA/MUFA; omega-6/omega-3	9	%, ratio
Cholesterol	Total, non-HDL, remnant, VLDL, clinical LDL, LDL, HDL	7	mmol/L
Amino acids	Alanine; total BCAA, isoleucine, leucine, valine; tyrosine	6	mmol/L
Other lipids	Phosphoglycerides, TG/phosphoglyceride ratio, total cholines, phosphatidylcholines, sphingomyelins	5	mmol/L, ratio
Triglycerides	Total; in VLDL, LDL, HDL	4	mmol/L
Phospholipids	Total in lipoprotein particles; in VLDL, LDL, HDL	4	mmol/L
Cholesteryl esters	Total esterified cholesterol; in VLDL, LDL, HDL	4	mmol/L
Free cholesterol	Total; in VLDL, LDL, HDL	4	mmol/L
Total lipids	In lipoprotein particles; in VLDL, LDL, HDL	4	mmol/L
Lipoprotein particle concentrations	Total; VLDL, LDL and HDL particles	4	mmol/L
Apolipoproteins	ApoB, ApoA1, ApoB/ApoA1	3	g/L, ratio
Ketone bodies	3-hydroxybutyrate	1	mmol/L
Fluid balance	Creatinine	1	μmol/L
Inflammation	Glycoprotein acetyls (GlycA)	1	mmol/L
Total		108	

HOW IT WORKS

A simple remote workflow, from sample to insight



1. COLLECT

A small finger-prick blood sample, taken with the collection kit at home or in clinic. The dried sample keeps for up to three weeks, more than 95 % of samples are analysed successfully in real-world use, and one sample covers the add-ons too.

2. ANALYSE

The laboratory measures the sample with high-throughput NMR spectroscopy, many blood markers in one analysis.

3. MODEL

An algorithm turns the spectrum into blood markers used in clinical practice, which are combined with metabolic-health and risk models.

4. REVIEW

Results are returned for interpretation and appropriate follow-up.

CLINICAL VALUE

From measurement to meaningful follow-up

Metabolic Resilience adds a dynamic metabolic layer to preventive-health and longevity programmes. The value lies not only in the number of biomarkers, but in combining molecular detail, risk context and repeat measurement.

01	IDENTIFY	Find metabolic patterns and areas of increased risk.
02	INTERVENE	Use the wider clinical picture to personalise the next steps.
03	RE-MEASURE	Track relevant metabolic change over time.



LIMITATIONS

Risk assessment is not diagnosis

A risk estimate does not mean that a person has, or will develop, a particular disease. Results should be read within the wider clinical context: medical history, symptoms, lifestyle, physical findings and other relevant investigations.

Metabolic Resilience supports, and does not replace, clinical assessment. Availability, intended use and regulatory status vary by market and may differ between the base test and the add-ons. Definitions and validation of Metabolic Age, the Metabolic Resilience Score and the risk outputs follow the applicable product documentation.

The technology behind the analysis

Many markers, one sample

Instead of testing one marker at a time, the laboratory measures many blood markers from one sample with NMR spectroscopy. The markers are linked with a large dataset of health outcomes, which makes it possible to estimate disease risk for several chronic diseases at once.

Use in research

As documented by the laboratory, the technology is used by more than 200 medical research organisations in more than 30 countries, has been applied to more than two million samples and is supported by more than 900 peer-reviewed publications.

Population cohorts

The extended metabolomics panel is the same NMR-based panel the laboratory has measured in large research cohorts such as UK Biobank (500,000 samples) and the Copenhagen General Population Study.

WHITE-LABEL OPPORTUNITY

Your programme. Your brand. Our infrastructure.

Metabolic Resilience can be integrated into healthcare, longevity and preventive-health programmes as a branded or co-branded testing pathway, without building the laboratory infrastructure behind it.

White-label options can include

- Branded test kits and packaging
- Integration into existing clinic or longevity programmes
- Remote sample collection
- Laboratory analysis
- A patient-facing experience in your name
- Results delivered into your preferred reporting environment
- Repeat testing and longitudinal programmes

Partner value

REMOTE ACCESS

Sample collection at home, outside the clinic.

METABOLIC DEPTH

Molecular profiling and risk context added to the patient journey.

LONGITUDINAL USE

Repeat testing to follow change over time.

Metabolic Resilience

One blood sample. A deeper view of metabolic health and future disease risk.

Where Longevity Becomes Measurable.

info@bioagediagnostics.com · +45 22 70 47 24 · www.bioagediagnostics.com