VOLO™ HEALTH

VHR Clinician Guide

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START HERE

Every number in the VOLO™ Health Report (VHR) comes from one value: the 15-year Risk Ratio — how the patient's biomarkers compare to age- and sex- matched peers. The VOLO™ Score, VOLO™ Age, and the Impact figures are all that same value shown in three different ways. Read them as a long-term outlook relative to peers, not as a statement about disease today.

- Long-term Outlook, not diagnosis — a 15-year outlook.
- Average isn't the ceiling —a VOLO Score of 200 is average; above 200 is healthier.

THE FOUR METRICS WHAT EACH METRIC TELLS YOU—AND HOW TO READ IT

Metric	What it means	How to read it
Risk Ratio (SOURCE)	15-year domain risk vs. the average peer	The base metric — everything else is derived from this. Higher = more risk.
VOLO Score	The Risk Ratio on a 200-centered index	Your tracking number. Higher is better; 200 = average peer risk. Read the category (color band) together with the trend over time.
VOLO Age	Domain risk expressed as a functional age	Read the **delta** vs.chronological age — more negative is better, indicating years below actual age. Useful forpatient motivation.
Score Impact	One biomarker's effect on the domain score	Positive = favorable,lowers domain risk. Negative = unfavorable, raises domain risk. The biomarkers with the largest impact values (either direction) are driving the domain score.

INTERPRETING THE VOLO SCORE

POOR	MARGINAL	AVERAGE	GOOD	EXCELLENT
<180	180–194	195–205	206–220	>220



The 20-point rule: every 20-pt move ≈ halving or doubling of relative domain risk — up is better (200→220 halves), down is worse (200→180 doubles). Also read the score against its **domain maximum**, which varies by domain based on population risk variation: 212 of 225 leaves little headroom (maintain), 212 of 275 signals room to improve.

VMR VS. TRADITIONAL LAB REFERENCE RANGE

The **VOLO Modeled Range (VMR)** is the biomarker range tied to the lowest 15- year composite risk ***across all domains*** for that patient's age and sex, derived from population outcomes rather than lab convention. A biomarker can be **"normal" by the lab yet still fall outside the VMR** — the optimal target; whenthe two disagree, follow the VMR for long-term health. Established treatment targets (e.g. LDL in known CVD) still take precedence. A biomarker outside its VMR can still add points in a domain — the VMR balances all six domains at once, while Score Impact is per domain.



A value inside the lab band but not within the VMR is a good patient teaching case.

TWO REFERENCE POINTS WHERE "ZERO" SITS, PER METRIC

Average peer SCORE · RISK RATIO	**200 = Risk Ratio 1.0** = expected for the average peer of that age& sex (excludes smokers, major cardiac/cancerhistory). Average, not optimal.
VOLO AGE DELTA	**0 (zero)** = functional age matches actual age Negative is better (functionally younger); positive is worse.

RISK MULTIPLIER BIOMARKER REFERENCE —NOT IN VHR

What it is: How a biomarker range's 15-year disease incidence compares to the lowest-risk range, by age, sex,and domain. 1.0 = healthiest range(unlike Risk Ratio's 1.0 = average peer);1.5=50% higher incidence than that floor.

How it helps read the VHR: Score Impact and Strength show that a biomarker is helping or hurting, and how strongly. Use the Risk Multiplier to see how the patient's range compares to the best-performing range, across all six domains.

hs-CRP

Males (VMR: 0.43 to 1.27 mg/L)

Range (mg/L)	CV	Kidney	Metabolic	Brain	Inflamm	Longevity	Proportion	Peer Distribution
0.14-0.5	1	1	1	1.6	1	1	18%	
0.5-1	1.2	1.2	1.5	1.1	1.1	1	25%	
1-1.7	1.4	1.4	1.9	1	1.1	1.1	21%	
1.7-3	1.5	1.6	2.3	1	1.2	1.3	18%	
3-6	1.7	2	2.7	1.1	1.3	1.6	11%	
6-27.35	1.8	2.5	2.5	1.3	1.4	1.9	6%	

When to use it: The online VOLO Health Biomarker Reference Guide shows risk variation across the biomarker's full range, domain by domain, to help decide whether it's worth addressing.

→ **biomarkers.volohealth.com**

SIX HIGHLIGHTED DEFAULT DOMAINS EACH A 15-YEAR PREVALENCE PREDICTION

Cardiovascular	Kidney	Metabolic	Brain	Inflammation	Longevity
Heart attack, stroke & cardiovascular death	Acute kidney disease & renal failure	Type 2 diabetes & metabolic syndrome	All-cause dementia & cognitive decline	Est. inflammatory risk via GDF-15 correlated markers	Survival trajectory to age 85

Six of the default domains are highlighted here; reports may include additional domains over time.

REVIEW CADENCE Full panel at least annually; targeted re-checks every 3–6 months for patients tracking a specific change

The VHR is a general health & wellness education tool — not a diagnostic instrument or FDA-reviewed medical device. Interpret in the context of the full clinical picture. VOLO Health © 2026

VOLO™ HEALTH

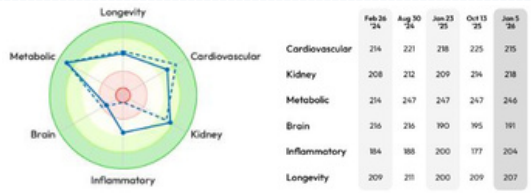
VHR Clinician Guide – Reading the report

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SECTION 1 · METHODOLOGY DEFINITIONS

Defines every metric — written for patients — skim to anticipate questions.

SECTION 2 · RESULTS OVERVIEW START HERE



	Feb 26 '24	Aug 30 '24	Jan 23 '25	Oct 13 '25	Jan 5 '26
Cardiovascular	214	221	218	225	215
Kidney	208	212	209	214	218
Metabolic	214	247	247	247	246
Brain	216	216	190	195	191
Inflammatory	184	188	200	177	204
Longevity	209	211	200	209	207

Radar: Explains the overall domain pattern at a glance. Spokes = domains; dashed = prior, solid = current; outer ring = max possible score.
Score Grid: each domain's score across up to 5 visits

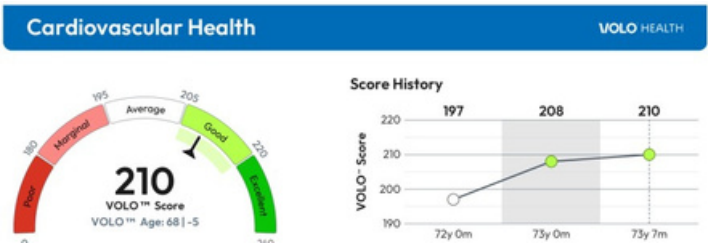
Top Individual Biomarkers *Opportunities for Improvement & Maintain*



Your action list — Improve vs. Maintain. A value outside the blue VMR (even if inside the gray lab range) is where there's room for improvement.
For one domain in depth → Section 3.

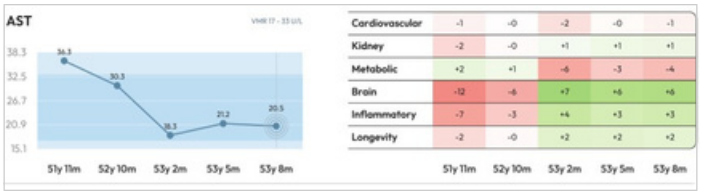
Score Change Overview *(shown when a VHR covers more than one set of measurements):* when multiple measurement sets are available, this highlights the domain's direction since the last visit and identifies the 5 biomarkers most responsible for the change.

SECTION 3 · SCORES BY DOMAIN CORE DISCUSSION



Lead with the gauge and the VOLO Age delta.
The gauge shows current score, color band, and VOLO Age with its delta — a large negative delta is the good news story. Read the score-history line for inflection points that point you to Section 4. Biomarkers below the gauge are ranked by Strength.

SECTION 4 · SCORES BY BIOMARKER WHY IT MOVED



	51y 11m	52y 10m	53y 2m	53y 5m	53y 8m
Cardiovascular	-1	-0	-2	-0	-1
Kidney	-2	-0	+1	+1	+1
Metabolic	+2	+1	-6	-3	-4
Brain	-12	-6	+7	+6	+6
Inflammatory	-7	-3	+4	+3	+3
Longevity	-2	-0	+2	+2	+2

One biomarker, its impact across all six domains over time. Left graph = value vs. VMR; Right table = Score Impact per domain (green = favorable, red = detrimental)
Find high-leverage biomarkers — colored across many domains, sometimes in opposite directions: as AST falls into the VMR (image above), Brain improves (−12 to +7) while Metabolic worsens. Interpret impact together with Strength — a big impact on a high-Strength biomarker is a firm target — and check each domain's trend separately.

SECTION 5 · APPENDIX DEEP REFERENCE

	CV	Kidney	Metab.	Brain	Inflamm.	Longev.
Cystatin C	10	10	4	6	10	10
HbA1C	9	7	10	9	7	7
BMI	8	7	8	5	6	7
C-Reactive Protein	8	5	4	8	6	7
HDL Cholesterol	8	4	5	4	5	5

Strength Table: how strongly each biomarker's correlation to each domain (10 = Strongest, 1 = Weakest). Separates universally strong markers (Cystatin C, HbA1c) from domain-specific ones. This is a reference table and is the same for every patient. Check before acting on an impact.

	CV	Kidney	Metab.	Brain	Inflamm.	Longev.
Risk Ratio	0.71	1.03	3.06	1.21		1.23
VOLO Score	210	199	168	195	221	194
Max Score	240	245	275	235	240	225
Percentile	80	43	17	33	72	34
VOLO Age Delta	-5.4	0.4	7.7	1.0	-5.8	2.0
VOLO Age	68	74	81	75	68	76

VOLO Score Summary Table: opens with a domain summary — each domain's Risk Ratio, VOLO Score, **Max Score** (headroom check), Percentile, and VOLO Age (with delta) — then lists every biomarker's value and VOLO Score Impact across all domains.

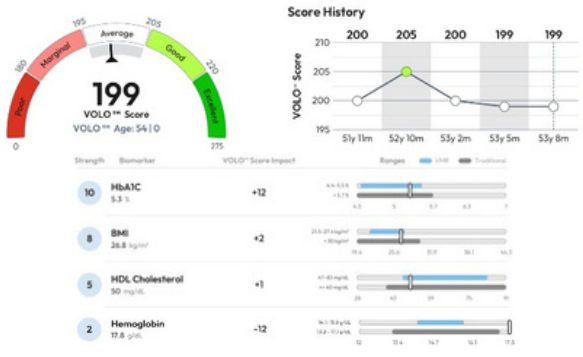
INTERPRETATION CAUTIONS IMPACT • IMPUTED • CARRIED VALUES

Impact ≠ value. Impact is multivariate—a biomarker can holdits valueover timeyet show a different impact as surrounding biomarkers change.

One poor domain? Domains are modeled independently. Open that domain in Section 3, or its column in the Section 5 summary, to find biomarkers lowering it.

Imputed (*): estimated, not measured. If a high-Strength biomarker is starred, consider adding it to the next lab draw.
Carried-forward value ([f]): a real value applied to a later timepoint within the 2-year window.
Carried-backward value ([b]): a newly measured value replaces earlier imputed points within the 2-year window.

READING ONE DOMAIN END TO END ILLUSTRATIVE ONLY — NOT CLINICAL GUIDANCE



Workflow: start with what changed (§2), go deeper by domain (§3) or by biomarker (§4), confirm in the appendix (§5)

Metabolic

1 Start at the gauge.
199 (Average), VOLO Age 54 (0 age change – at expected). VOLO Score is 199 of 275 –significant room to improve.

2 Find the biomarkers driving score impact.
Holding it up: HbA1c 5.3%, in VMR, +12, Strength 10 — biggest driver; need to maintain or improve.
Lowering it: Hemoglobin -12, but Strength 2, so weigh lightly before acting.

3 Check the trends, then set goals.
200→205→200→199→199, slight drifting. Maintain/improve HbA1c, improve BMI. Before targeting Hemoglobin, you can also confirm it in the Section 2 Opportunities for Improvement list and refer to Section 4 to view the individual Hemoglobin value trend & the corresponding VOLO Score impact table.

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