

Beyond the Standard Panel: A Testing Reference

A conversation reference, not a universal panel. Decisions to test belong with a qualified clinician.

Most clinicians are trained to test to a threshold: the point at which a result becomes a diagnosis. That is the right instinct for acute care. For longevity-focused practice it misses the window where intervention matters most, the years before a standard result moves out of range, when the underlying process is already active and still reversible.

Area	Standard test	Order instead / alongside	Why it matters
Diabetes risk	HbA1c, fasting glucose	Fasting insulin + HOMA-IR	Raised fasting insulin with normal glucose is the window: years of compensation before glucose moves
Cardiovascular risk	Standard lipid panel	ApoB; Lp(a) (once)	ApoB tracks particle number, not just cholesterol content. Lp(a) is largely genetic: test once, it informs risk stratification rather than a repeat-monitoring plan
Inflammation	None routine	hs-CRP	Predicts cardiovascular events independent of cholesterol; cheap and on most lab menus
Thyroid	TSH alone	Free T3, free T4, TPO/TgAb antibodies	Antibodies can flag autoimmune thyroid disease years before TSH drifts
Liver	ALT/AST	FIB-4 (calculated from age, ALT, AST, platelets)	No new test: a calculation from values already on a standard panel, worth running routinely
Micronutrients	Usually none	Vitamin D, ferritin, homocysteine	A normal full blood count does not rule any of these out. Homocysteine is a risk marker (association), not a proven treatment target

Why this matters for your practice. A client told "your bloods are normal" elsewhere who then gets a result from you that explains how they feel understands, for the first time, what you do differently. That is what turns a one-off booking into a returning client who refers others.

Why a list of tests is not enough. Knowing which markers to order is the easy part. The harder part is what to do with six results that each point in a slightly different direction for the same person: which is the driver, which are downstream, and which single intervention to prioritise first. That is a framework problem, not a testing problem.

Where this fits. The HSI Anti-Ageing & Longevity Medicine Certification teaches this in full: not just which tests to order, but the Healthspan Model and HSI Method for turning results into a coherent, personalised case.

Sources

- Prentki M, Nolan CJ. Islet β cell failure in type 2 diabetes. J Clin Invest 2006. <https://www.jci.org/articles/view/29103>
- Sniderman AD et al. Meta-analysis of LDL-C, non-HDL-C and apoB as markers of cardiovascular risk. Circ Cardiovasc Qual Outcomes 2011. <https://www.ahajournals.org/doi/10.1161/circoutcomes.110.959247>
- Lipoprotein(a): a genetically determined, causal and prevalent risk factor for atherosclerotic cardiovascular disease. AHA Scientific Statement. <https://www.ahajournals.org/doi/10.1161/ATV.0000000000000147>
- Ridker PM et al. Rosuvastatin to prevent vascular events in men and women with elevated C-reactive protein (JUPITER). N Engl J Med 2008. <https://www.nejm.org/doi/full/10.1056/NEJMoa0807646>
- Transitioning FIB-4 score: from fibrosis screening tool to key biomarker for clinical endpoints. J Hepatol. [https://www.journal-of-hepatology.eu/article/S0168-8278\(24\)00353-2/fulltext](https://www.journal-of-hepatology.eu/article/S0168-8278(24)00353-2/fulltext)
- Homocysteine as a risk factor for cardiovascular disease. Swiss Med Wkly. <https://smw.ch/index.php/smw/article/download/672/669/1332> (association only; B-vitamin trials have had mixed cardiovascular results)

Clinical interpretation and limits

This is a discussion reference, not a universal testing panel or a replacement for standard care. An out-of-range marker does not by itself explain symptoms, identify a cause or prove that treatment will help. Additional testing depends on history, examination, risk and a clear decision it could change.

Fasting insulin and HOMA-IR are surrogate estimates, not diagnostic tests for diabetes. Assays and thresholds vary; routine testing is not generally recommended for most people at risk of diabetes. HbA1c and glucose remain established diagnostic tools.

ApoB reflects atherogenic particle burden rather than a literal particle count. Lp(a) is usually measured at least once in adulthood; repeat testing may be appropriate when clinical circumstances or treatments change. Interpret both within overall cardiovascular risk.

hs-CRP is non-specific: infection, injury and inflammatory conditions can raise it. Interpret in a clinically stable person and consider repeat measurement when indicated. A single result does not diagnose inflammation or indicate a specific treatment.

A normal TSH is usually informative for primary thyroid disease. Free T4, free T3 and antibodies are selected for specific indications, not automatically ordered together. Positive antibodies with normal thyroid function do not alone require treatment.

FIB-4 estimates risk of advanced liver fibrosis in appropriate at-risk groups; it does not diagnose fatty liver or measure early liver health. Age affects accuracy, including reduced performance below 35 and different thresholds above 65. It is not a routine universal screening test.

Vitamin D, ferritin and homocysteine need a clinical indication and context. Routine vitamin D screening in healthy adults is not generally recommended. Ferritin can rise with inflammation. Lowering homocysteine has not consistently reduced cardiovascular events; an “optimal” range is not a universally validated treatment target.

Further clinical guidance

Laboratory analysis in diabetes: ADA/AACC guideline (2023) — <https://pmc.ncbi.nlm.nih.gov/articles/PMC10516260/>

AASLD practice guidance: fatty liver and FIB-4 (2023) — <https://pmc.ncbi.nlm.nih.gov/articles/PMC10735173/>

American Thyroid Association: thyroid function tests — <https://www.thyroid.org/thyroid-function-tests/>

Endocrine Society: vitamin D prevention guideline (2024) — <https://www.endocrine.org/clinical-practice-guidelines/vitamin-d-for-prevention-of-disease>

Book your place by enquiry: info@harleystreetinstitute.com