Blueprint + Bloodwork.

Your genes meet your blood.

133 genetic markers · Bloodwork against functional optimal ranges · Written personally

Prepared for	Report Date	Platform
R.K.	**August 2026**	**23andMe v5**

Sample report — anonymised, not a real client. Educational purposes only. Does not constitute medical advice.

ROOT CAUSE SUMMARY

What Your Biology Has Been Trying to Tell You.

CAUSES IDENTIFIED

1. **CYP19A1 elevated aromatase** — your body converts testosterone to oestrogen at an accelerated rate. Free testosterone is functionally depleted regardless of what total testosterone shows on a standard panel.

2. **APOE ε3/ε4** — lipid metabolism and cardiovascular risk are genetically amplified. Your brain's ability to clear amyloid is reduced — this finding warrants proactive intervention, not observation.

3. **NR3C1 cortisol sensitivity** — your glucocorticoid receptors are more responsive than typical. Chronic stress produces a stronger and more prolonged physiological response in this profile.

4. **Suboptimal biomarkers across four systems** — homocysteine elevated, ferritin below functional threshold, Vitamin D deficient, TSH above optimal — each compounding the genetic findings above.

YOUR PATH FORWARD

- → *Aromatase modulation protocol — DIM, zinc, and lifestyle factors specific to CYP19A1 profile*
- → *APOE4 longevity protocol — omega-3 form, timing, dietary fat architecture*
- → *Homocysteine correction — active folate and B12 sequenced to NR3C1 cortisol sensitivity*
- → *Ferritin and Vitamin D optimisation — functional targets, not standard lab minimums*
- → *Cortisol management — phosphatidylserine context, HPA axis support*

Your complete Path Forward — supplement forms, research doses, sequencing, and the reasoning behind every decision — is in your full report.

CLINICAL CONTEXT

Primary complaints: Persistent fatigue despite adequate sleep, declining exercise recovery, brain fog, low libido, mood instability. Executive-level stress load ongoing for several years. Annual bloodwork consistently reported as normal.

Lab values submitted: Total testosterone 421 ng/dL (low-normal). Free testosterone 8.2 pg/mL (low). Homocysteine 13.8 µmol/L (elevated). Ferritin 31 µg/L (below functional threshold). Vitamin D 48 nmol/L (deficient). hsCRP 2.1 mg/L (suboptimal). TSH 3.1 mIU/L (suboptimal). Fasting glucose 5.1 mmol/L (borderline). LDL 3.4 mmol/L.

What this report works through: Total testosterone at 421 is within standard reference range. Free testosterone at 8.2 is not. The CYP19A1 elevated aromatase variant explains the gap — excess conversion is occurring at the genetic level. This finding, combined with the APOE ε3/ε4 status and elevated homocysteine, creates a compounding picture that standard annual bloods cannot see.

PRIORITY ACTION SUMMARY

PRIORITY	INTERVENTION	RATIONALE	TIMING
URGENT	Homocysteine — active folate + methylcobalamin protocol	13.8 µmol/L elevated. APOE4 + high homocysteine = compounding cardiovascular and cognitive risk	Now
HIGH	Aromatase modulation — DIM + zinc + lifestyle protocol	CYP19A1 elevated — free testosterone depleted by excess aromatisation	Week 1
HIGH	Ferritin optimisation — target 70-150 µg/L functional range	Ferritin 31 — below threshold for energy, testosterone production, thyroid function	Week 1
HIGH	APOE4 omega-3 protocol — specific form and dosing	APOE4 reduces omega-3 transport efficiency — standard dosing is often insufficient	Week 2
MODERATE	Vitamin D3 — target 125-200 nmol/L functional range	48 nmol/L — deficient. Immune function, testosterone production, and mood all affected	Concurrent

Your hormone panel does not exist in isolation. Every finding below is read in the context of your bloodwork — what your genetics predict, and what your current biology confirms.

CYP19A1	rs10046	**Elevated aromatase activity**	SIGNIFICANT

CYP19A1 encodes aromatase — the enzyme that converts testosterone and androstenedione to oestradiol. Elevated activity variants produce accelerated conversion, systematically depleting free testosterone regardless of production rate. Total testosterone can appear normal while free testosterone is functionally inadequate.

Your free testosterone at 8.2 pg/mL confirms this mechanism is active. The gap between total and free testosterone in this profile is a direct expression of CYP19A1 elevated activity, not a coincidence.

Protocol direction: DIM (diindolylmethane) supports favourable oestrogen metabolism through a different mechanism — promoting the 2-hydroxy pathway over the 16-alpha pathway. Zinc directly inhibits aromatase at the enzymatic level. Both are documented in the peer-reviewed literature for this variant context.

Haiman CA et al. Nat Genet 2007. Ropero AB et al. J Steroid Biochem 2006.

APOE ε3/ε4	rs429358 / rs7412	**One ε4 allele**	SIGNIFICANT

APOE ε4 reduces the efficiency of lipoprotein-mediated lipid transport and impairs amyloid-beta clearance from the brain. One copy (ε3/ε4) confers approximately 3-4x increased Alzheimer's risk versus ε3/ε3 — the most important single genetic risk factor for late-onset neurodegeneration.

The cardiovascular implication is equally important: APOE ε4 is associated with higher LDL response to dietary saturated fat, reduced omega-3 transport efficiency, and altered lipid metabolism. Your LDL at 3.4 mmol/L in this context warrants monitoring against functional rather than standard thresholds.

Protocol direction: EPA/DHA in triglyceride form (not ethyl ester) is documented to have superior bioavailability in APOE4 carriers. Dose in the published longevity literature for this genotype is typically higher than standard recommendations. Dietary saturated fat architecture matters more than total fat for this profile.

Corder EH et al. Science 1993. Huang Y et al. Neuron 2017. Schaefer EJ et al. Atherosclerosis 2001.

NR3C1 Glucocorticoid Receptor	rs41423247	**BclI variant — increased sensitivity**	MONITOR

NR3C1 encodes the glucocorticoid receptor. The BclI variant is associated with increased receptor sensitivity — meaning a given cortisol concentration produces a stronger downstream physiological response than in less-sensitive genotypes. Under sustained stress, this amplifies HPA axis activation, suppresses testosterone production, and worsens the aromatase picture.

This variant does not cause high cortisol. It amplifies the effect of whatever cortisol is present. The combination with CYP19A1 elevated aromatase means stress events have a compounding effect on free testosterone depletion.

van Rossum EF et al. J Clin Endocrinol Metab 2004. Wust S et al. Neuropsychopharmacology 2004.

BIOMARKER SNAPSHOT — WHAT YOUR BLOOD IS TELLING US

Every result below is assessed against functional optimal ranges — targets calibrated for optimal biological performance, not simply the absence of diagnosed disease. A result your doctor called normal may appear here as suboptimal. That is not an error.

BIOMARKER	RESULT	GL RANGE	STATUS	WHAT THIS MEANS FOR YOU
Free Testosterone	8.2 pg/mL	10-25 pg/mL	LOW	Directly explained by CYP19A1 elevated aromatase. Total testosterone is misleading here — this is the number that matters for energy, cognition, and recovery.
Homocysteine	13.8 µmol/L	<7 µmol/L	ELEVATED	Cardiovascular and cognitive risk factor. In the context of APOE4, elevated homocysteine compounds amyloid clearance impairment. Priority intervention.
Ferritin	31 µg/L	70-150 µg/L	DEFICIENT	Below the level for optimal testosterone biosynthesis, thyroid function, and sustained energy. This single result explains a significant portion of the fatigue picture.
Vitamin D3	48 nmol/L	125-200 nmol/L	DEFICIENT	Well below functional optimal. Testosterone production, immune function, and mood are all affected. Standard dosing is often insufficient for this deficit level.
hsCRP	2.1 mg/L	<1.0 mg/L	SUBOPTIMAL	Low-grade systemic inflammation. Silent amplifier of fatigue, cognitive load, and hormonal disruption. Consistent with elevated aromatase activity.
TSH	3.1 mIU/L	0.5-2.0 mIU/L	SUBOPTIMAL	Your doctor likely called this normal. At 3.1 with ferritin deficiency and elevated homocysteine, thyroid is working harder than it should.
Fasting Glucose	5.1 mmol/L	4.0-5.0 mmol/L	BORDERLINE	At the upper edge of functional optimal. In the context of chronic cortisol sensitivity (NR3C1), metabolic monitoring is warranted.

This is a sample showing 7 of the 24 biomarkers assessed in a full Blueprint + Bloodwork report. Your full report connects every result to your genetic findings and builds a protocol that addresses each finding in priority order.

WRITTEN Q&A; SESSION — SAMPLE EXCHANGE

Included with Blueprint + Bloodwork. After your report is delivered, you submit your questions in writing. You receive written answers within the week. This is a sample of what that exchange looks like.

Q: My doctor wants to put me on TRT. Does my report change that conversation?

A: Your free testosterone at 8.2 pg/mL is genuinely low — that is not a subjective reading. However, the primary driver in your profile is CYP19A1 elevated aromatase activity, not inadequate production. TRT without addressing the aromatase picture will often convert the additional testosterone to oestradiol, potentially worsening the imbalance. The report documents this mechanism specifically so you can have an informed conversation with your prescribing physician about sequencing: addressing the aromatase pathway first, repeating free testosterone in 90 days, and evaluating whether production support is still indicated at that point.

Q: I've been taking a standard multivitamin. Is that useful for my profile?

A: Standard multivitamins typically contain folic acid (not active folate), cyanocobalamin (not methylcobalamin), and vitamin D2 (not D3) at doses well below what your profile requires. For your specific genetic and biomarker combination, the multivitamin is likely contributing very little to your actual deficiencies. The protocol documents each nutrient separately with the form, dose, and timing that the published literature supports for your variants. Continuing the multivitamin alongside the protocol is low-risk but not a substitute for the targeted interventions.

Blueprint + Bloodwork includes one written Q&A; session after report delivery. Full Optimisation includes one written Q&A; session per month across 3 months.

YOUR OPTIONS

Your results came back normal. You still don't feel normal.

Three tiers. One biological picture.

Tier 1 DNA Blueprint	Tier 2 Blueprint + Bloodwork	Tier 3 Full Optimisation
$397	**$697**	**$1,197**
✓ 133 markers · 12 domains	✓ Everything in Tier 1	✓ Everything in Tier 2
✓ Root Cause Summary	✓ Blood results vs functional ranges	✓ 3-month structured programme
✓ SNP interaction analysis	✓ Not standard lab minimums	✓ Monthly structured intake form
✓ Supplement protocol + research doses	✓ Biomarker Snapshot — DNA + blood connected	*Bloodwork · supplements · health changes*
✓ Drug-supplement interaction notes	✓ Written Q&A; session after delivery	✓ Monthly protocol revision
✓ Supplement stack review	*Submit questions · receive written answers*	✓ Monthly written Q&A; session
✓ Food-as-amplifier guidance	*— No monthly updates*	*3 updates · 3 Q&A; sessions · 90 days*
✓ 90-day implementation plan		✓ No open inbox — structured, intentional
✓ Peer-reviewed citations		**This is where the data compounds.**
— No bloodwork integration		
— No Q&A; session		
— No monthly updates		

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