

NEXT GENERATION SEQUENCING

Nutri genomics Report

Eat For Your Biology.
Test, Don't Supplement Blindly.



Nutrient Requirements

Where your needs differ from average.



Appetite and Satiety

Why eating well feels the way it does.



Intolerances

What your body handles poorly, and why.



BIO HEALTHCARE

HUB™

PREDICT

PREVENT

PROTECT



Name: **Avani Mehta**



Report Date: **12 August 2026**



Sample ID: to be completed by lab

YOUR RESULTS

Protein, fibre, less coffee

Thirty-two traits, and three of them do most of the work: weak fullness signals, a strong pull towards fat, and slow caffeine clearance. Those three explain more about your day than the twenty-nine below them. Thirty-two traits, twenty-four genes.

HIGHEST RESULT

Satiety response

9.0

Fullness arrives late — protein and fibre help most.

MOST PRACTICAL

Caffeine metabolism

2.7

Slow clearance; stop by early afternoon.

BEST NEWS

Weight loss maintenance

6.7

You hold a loss better than most people.

■ WORKING FOR YOU ■ AVERAGE ■ NEEDS ATTENTION

APPETITE AND EATING BEHAVIOUR

[illegible]

TASTE PERCEPTION

[illegible]

MACRONUTRIENT RESPONSE

[illegible]

VITAMIN AND MINERAL REQUIREMENTS

[illegible]

FOOD INTOLERANCES AND SENSITIVITIES

Caffeine metabolism	■■■□□□□□□□	2.7
Lactose intolerance	■■■■■●■■□□□□	7.0
Gluten sensitivity	■■■■■●■■□□□□	7.0

HOW TO READ THIS



Every trait is scored out of 10

The colour shows whether that score is in your favour, which depends on the trait: a high performance score is good news, a high risk score means more care is needed. Each card states which way round it is.

A score is not a diagnosis

It describes a tendency inherited from your genes, not an outcome. Most of these traits are shaped far more by what you do than by what you carry.

The action list is the point

Every trait ends with what to actually do about it.
If you read nothing else, read those and the
summary near the end.



Appetite and eating behaviour

4 TRAITS

How your body signals hunger and fullness — the traits that decide how hard eating well actually feels.

Satiety response

High — fullness signals arrive late and quietly

9.0
/10

HIGHER = GREATER PREDISPOSITION

Satiety means the feeling of fullness or suppression of hunger for a period of time after a meal. Certain genetic variations can influence the ability to feel satiated after consumption of a meal, which can lead to overeating for individuals with a poor satiety response. **This is the highest score in your report: you are likely to feel full later and less definitely than most.**

WHAT TO DO ABOUT IT

- Build meals around protein and fibre; both drive fullness signalling far more strongly than fat or starch.
- Eat slowly enough for the signal to arrive; twenty minutes is roughly the delay.
- Serve a fixed portion rather than eating from a shared dish — visual cues matter more when internal ones are weak.
- Drink water before meals; it is a small effect but a free one.

Gene **FTO**

Your genotype **AA**

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Snacking pattern

High — an urge to eat again soon after eating

7.7
/10

HIGHER = GREATER PREDISPOSITION

Eating behaviour is a complex interplay of physiological, psychological, social, and genetic factors that influence meal timing, quantity of food intake, food preference, and food selection. Even after a meal, some individuals tend to look for snacks or more meals. **Your result is high, which pairs with your satiety score to explain persistent grazing.**

WHAT TO DO ABOUT IT

- Structure meals rather than grazing; defined eating windows reduce total intake reliably.
- If you snack, pair protein with fibre rather than eating carbohydrate alone.
- Keep convenient food out of sight — availability drives snacking more than hunger does.
- Distinguish boredom and stress eating from hunger by waiting ten minutes.

Gene **near LEP**

Your genotype **GA**

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Ability to maintain weight loss

Above average — you hold losses better than most

HIGHER = GREATER ADVANTAGE



While losing weight is difficult for many people, it is equally challenging to keep the weight off. A significant number of people who lose a large amount of weight tend to regain it 1 to 3 years later. **A genuinely encouraging result: maintaining a loss appears easier for you than for most people.**

WHAT TO DO ABOUT IT

- Lose weight slowly enough to keep the habits that produced the loss.
- Continue tracking loosely after reaching a target — maintenance is an active phase.
- Keep resistance training through any deficit; preserved muscle protects maintenance.
- Regular weighing detects drift early, when it takes little to correct.

Gene **BDNF**

Your genotype **AG**

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Emotional eating

Average — no strong tendency either way

HIGHER = GREATER PREDISPOSITION



Emotional eating is a form of disordered eating, and it is defined as an increase in food intake in response to emotions. Some people have a strong emotional connection with food. **Your result is mid-range, so emotional eating is likely habit rather than wiring for you.**

WHAT TO DO ABOUT IT

- Notice whether eating follows a feeling rather than hunger; naming it reduces it.
- Sleep deprivation amplifies emotional eating substantially.
- Have a non-food response ready for stress — a walk works better than willpower.
- If food is a primary coping strategy, that is worth talking to someone about.

Gene **DRD2**

Your genotype **CC**

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)



IN SHORT

This is the most useful section of your report. Your satiety and snacking results explain far more about day-to-day eating than any macronutrient score below.



Taste perception

3 TRAITS

How you experience sweet, bitter and fat — which shapes preference long before any conscious decision about food.

Fatty food preference

High — a strong pull towards fat-rich food

8.0
/10

HIGHER = GREATER PREDISPOSITION

Fatty food preference tells us about our taste-based preference for foods rich in fats, such as deep-fried foods, nuts, cheese, and red meats. How an individual perceives the taste of foods dictates the individual food preferences, eating behaviour, and nutritional intake. **Your result is high, meaning fat-rich food is likely to be genuinely more rewarding for you.**

WHAT TO DO ABOUT IT

- Manage this through availability rather than willpower; what's in the house wins.
- Keep the fats you do eat useful: olive oil, nuts, oily fish.
- Use flavour — herbs, acid, spice — to make lower-fat food genuinely satisfying.
- Fat is calorie-dense, so small portion changes have outsized effects here.

Gene CD36

Your genotype AG

FULL GENE DETAIL ON THE REFERENCE PAGE

Bitter taste perception

Average — you taste bitterness normally

5.7
/10

HIGHER = GREATER ADVANTAGE

Bitter taste perception is the ability of our taste buds to sense bitter foods. Taste perception explains individual food preferences and the impact of eating behaviour and nutritional intake. **Your result is mid-range, so vegetables shouldn't taste unusually harsh to you.**

WHAT TO DO ABOUT IT

- Roasting and charring reduce bitterness in brassicas considerably.
- Bitter tolerance increases with repeated exposure, at any age.
- Pair bitter vegetables with acid or a little fat to balance them.
- No practical restriction arises from this result.

Gene TAS2R38

Your genotype CT

FULL GENE DETAIL ON THE REFERENCE PAGE

Sweet taste perception

Average — ordinary sensitivity to sweetness

HIGHER = GREATER ADVANTAGE

5.6
/10

Sweet taste perception is the ability of our taste buds to sense sweet foods. Taste perception explains the individual food preferences and the impact of eating behaviour and nutritional intake. **Your result is mid-range, so you neither need extra sweetness nor over-detect it.**

WHAT TO DO ABOUT IT

- Reducing sweetness gradually recalibrates preference within a few weeks.
- Artificial sweeteners maintain the preference even while cutting sugar.
- Watch sweetened drinks; they deliver sugar without any fullness in return.
- Read labels on sauces and dressings, where most hidden sugar sits.

Gene **TAS1R3**

Your genotype **CC**

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

IN SHORT

The fat preference result is the one that matters practically: a strong pull towards fatty food is easier to manage by changing what's available than by resisting it.





Macronutrient response

6 TRAITS

How your body handles carbohydrate, fat, protein and fibre — where the idea of a genetically tailored diet is at its most and least useful.

Response to monounsaturated fats

Above average — olive oil and nuts suit you particularly well



HIGHER = GREATER ADVANTAGE

Monounsaturated fatty acids (MUFA) are a type of fat that contains one double bond in their backbone. These fats are usually liquid at room temperature. Monounsaturated fats also play a critical role in regulating the body's immune function. **Your best macronutrient result: you appear to benefit more than average from monounsaturated fat.**

WHAT TO DO ABOUT IT

- Make olive oil your default cooking and dressing fat.
- Replace saturated fat with these rather than adding them on top.
- Nuts, avocado and olives are the other main sources worth building in.
- A Mediterranean-pattern diet fits this result closely.

Gene **ADIPOQ**

Your genotype **AG**

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Response to fibre

Average — fibre works for you as it does for most



HIGHER = GREATER ADVANTAGE

Dietary fibre is a type of carbohydrate that cannot be digested by the body. The primary role of dietary fibre is in bowel function. Dietary fibre, particularly insoluble fibre, helps prevent constipation by increasing stool weight and decreasing the time of transit of stools in the gut. **Your result is mid-range, and almost everyone eats less fibre than they should.**

WHAT TO DO ABOUT IT

- Aim for 30g daily; most people manage under 20g.
- Wholegrains, legumes, fruit and vegetables all count — variety matters more than source.
- Increase gradually to avoid bloating, and drink more water as you do.
- Fibre improves satiety, which is directly relevant to your top result.

Gene **FTO**

Your genotype **TT**

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Response to saturated fats

Average — standard guidance applies

HIGHER = GREATER PREDISPOSITION

5.9
/10

Saturated fats are a class of macronutrients that are used for energy generation by the body. Saturated fats are found in butter, ghee, margarine, and in animal fats. **Your result is mid-range, so ordinary recommendations on saturated fat apply to you.**

WHAT TO DO ABOUT IT

- Keep saturated fat modest and replace it with unsaturated rather than with refined carbohydrate.
- Cooking method matters; grilling and baking beat frying.
- Processed meat is worth limiting independently of its fat content.
- Your monounsaturated result suggests where the replacement should come from.

Gene CD36

Your genotype AA

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Response to polyunsaturated fats

Average — oily fish remains worthwhile

HIGHER = GREATER ADVANTAGE

5.1
/10

Polyunsaturated Fatty Acids (PUFA) are a type of fat that contains more than one double bond in their backbone. PUFA-rich sources include sesame oil. Other sources include seeds such as walnuts and flaxseeds. **Your result is mid-range for a nutrient class with clear general benefits.**

WHAT TO DO ABOUT IT

- Two portions of oily fish weekly covers most of what's needed.
- Supplements are reasonable if you don't eat fish; whole food is preferable.
- Walnuts, flax and chia provide plant omega-3, though conversion is inefficient.
- Balance matters — most diets are heavy in omega-6 and light in omega-3.

Gene APOA4

Your genotype AA

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Response to carbohydrates

Low predisposition — you handle carbohydrate well

4.3
/10

HIGHER = GREATER PREDISPOSITION

Carbohydrates are important macronutrients and the primary source of energy and calories for the body. Carbohydrates are primarily divided into simple carbohydrate and complex carbohydrate groups. **Your lowest score in this section, suggesting carbohydrate is handled efficiently rather than poorly.**

WHAT TO DO ABOUT IT

- This is not a reason to cut carbohydrate; it suggests you tolerate it well.
- Pair carbohydrate with protein and fibre to blunt glucose response.
- Quality still matters — wholegrains and legumes over refined starch.
- Very low-carbohydrate diets offer you no particular genetic advantage.

Gene ACE

Your genotype AA

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Response to protein

Low predisposition — protein works efficiently for you

4.4
/10

HIGHER = GREATER PREDISPOSITION

Protein is an essential macronutrient required by the body for growth and maintenance. It acts as a building block for all the cells in the body and can also serve as a fuel source. **Another low-response result, suggesting you extract the benefits of protein readily.**

WHAT TO DO ABOUT IT

- Spread protein across meals rather than concentrating it in one.
- Protein is your strongest lever on satiety, which is your highest-scoring trait.
- Aim for a palm-sized portion at each main meal as a simple rule.
- Plant and animal sources both work; variety covers the amino acid range.

Gene FTO

Your genotype AA

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)



IN SHORT

Your carbohydrate and protein results are both low-response, which is worth reading carefully: it means your body handles these well, not that you need less of them.



Vitamin and mineral requirements

16 TRAITS

Where your body may need more of a nutrient than the average person to reach the same level. The highest scores flag where a blood test is worth more than a guess.

Vitamin B6 metabolism

High — a raised requirement relative to average

HIGHER = GREATER PREDISPOSITION

7.7
/10

Vitamin B6 is a part of the vitamin B group of essential nutrients. Our bodies use B vitamins to convert the food we eat into the energy we need to function. **Your highest micronutrient result, suggesting a greater than average need.**

WHAT TO DO ABOUT IT

- Food sources are easy: poultry, fish, potatoes, chickpeas and bananas.
- Stay well below 10mg daily from supplements unless medically directed.
- Don't supplement at high doses — excess B6 causes nerve damage, unusually among vitamins.
- Deficiency shows as cracked lips, irritability and a sore tongue.

Gene CBS

Your genotype CC

FULL GENE DETAIL ON THE REFERENCE PAGE

Iron metabolism

High — worth testing rather than assuming

HIGHER = GREATER PREDISPOSITION

7.1
/10

Iron is an essential element required in the body for the production of red blood cells. About 70% of the body's iron stores are found in red blood cells. **Your result is high, which makes measuring iron status more worthwhile than supplementing on spec.**

WHAT TO DO ABOUT IT

- Ask for ferritin; it detects falling stores long before anaemia appears.
- Never take iron supplements without testing — excess iron is genuinely harmful.
- Pair plant iron with vitamin C, and keep tea and coffee away from meals.
- Menstrual losses are the most common cause of deficiency in women.

Gene TF

Your genotype AA

FULL GENE DETAIL ON THE REFERENCE PAGE

Phosphate metabolism

High — usually an excess problem rather than a deficiency

HIGHER = GREATER PREDISPOSITION

7.0
/10

Phosphate is an essential mineral that is necessary for the formation of bones and teeth. In the body, almost all of the phosphorus is combined with oxygen, forming phosphate. **Your result is high, and modern diets tend to supply too much phosphate rather than too little.**

WHAT TO DO ABOUT IT

- Processed foods and cola drinks are the main sources of added phosphate.
- Deficiency is rare outside of specific medical conditions.
- Phosphate is measured on standard kidney blood panels if needed.
- High phosphate with poor kidney function affects bone health, so the two connect.

Gene CASR

Your genotype AG

FULL GENE DETAIL ON THE REFERENCE PAGE

Vitamin K metabolism

High — relevant mainly if you ever take warfarin

HIGHER = GREATER PREDISPOSITION

6.8
/10

Vitamin K is a group of fat-soluble organic compounds. Vitamin K is crucial for important processes such as blood clotting and bone mineralization. Therefore, a deficiency of vitamin K can cause symptoms like excessive bleeding, easy bruising, and increased predisposition to osteoporosis. **Your result is high for a vitamin that matters most in the context of blood thinners.**

WHAT TO DO ABOUT IT

- Leafy greens, broccoli and cabbage are the main dietary sources.
- Vitamin K works with vitamin D and calcium in bone metabolism.
- If warfarin is ever prescribed, keep vitamin K intake consistent rather than avoiding it.
- Deficiency is uncommon in people eating vegetables regularly.

Gene VKORC1

Your genotype CG

FULL GENE DETAIL ON THE REFERENCE PAGE

Salt metabolism

Moderately raised — you may be salt-sensitive



HIGHER = GREATER PREDISPOSITION

Table salt is a mineral composed primarily of sodium chloride. Sodium is an important electrolyte and an essential nutrient for human health, whose role in the body is primarily as an electrolyte and maintaining fluid balance. **Your result is above average, suggesting blood pressure may respond more to salt than most people's.**

WHAT TO DO ABOUT IT

- Most dietary salt comes from processed food, not the salt cellar.
- Potassium-rich foods partly offset sodium's effect on blood pressure.
- Check blood pressure periodically; salt sensitivity only matters through that route.
- Reducing salt recalibrates taste within a few weeks.

Gene **AGTR1**

Your genotype **AA**

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Calcium metabolism

Moderately raised — pair it with vitamin D



HIGHER = GREATER PREDISPOSITION

Calcium is the most abundant mineral in the body, more than 90% of which is present in the bones and teeth. Calcium is also important for the proper functioning of the thyroid gland. **Your result is above average for a mineral that requires vitamin D to be absorbed at all.**

WHAT TO DO ABOUT IT

- Aim for calcium from food: dairy, fortified alternatives, tofu, sesame, leafy greens.
- Split intake across the day; absorption is limited per sitting.
- Vitamin D status governs how much of it you actually absorb.
- Calcium supplements have mixed cardiovascular evidence — food is the safer route.

Gene **CYP24A1**

Your genotype **AA**

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Vitamin C metabolism

Moderately raised — easily covered by food

HIGHER = GREATER PREDISPOSITION

6.5
/10

Vitamin C, also known as ascorbic acid, is an essential water-soluble vitamin involved in the repair of tissues and the enzymatic production of certain neurotransmitters. It also plays an important role in the immune system, functioning as an antioxidant. **Your result is above average, which ordinary fruit and vegetable intake covers comfortably.**

WHAT TO DO ABOUT IT

- Peppers, citrus, berries and broccoli are all rich sources.
- It is water-soluble, so regular intake matters more than large doses.
- High-dose supplements offer no proven benefit and can cause stomach upset.
- Vitamin C improves absorption of plant iron, which links to your iron result.

Gene SLC23A2

Your genotype AG

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Vitamin D metabolism

Moderately raised — test rather than guess

HIGHER = GREATER PREDISPOSITION

6.1
/10

Vitamin D is a fat-soluble vitamin that is synthesised upon exposure of skin to sunlight. Vitamin D plays an important role in regulating calcium levels in the blood, thereby playing an important role in the maintenance of bone health. **Your result is above average for the nutrient most commonly deficient worldwide.**

WHAT TO DO ABOUT IT

- Ask for a blood test; this is one supplement worth taking on evidence rather than assumption.
- Sunlight is the main source, but latitude, skin tone and season all limit it.
- It governs calcium absorption, so it underpins your bone-related results.
- Supplementation is cheap, safe at standard doses and well evidenced where levels are low.

Gene GC

Your genotype AA

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Vitamin B9 (folate) metabolism

Average — relevant mainly around pregnancy

HIGHER = GREATER PREDISPOSITION



Vitamin B9, more commonly known as folate (a naturally occurring form of B9) or folic acid (a synthetic form), is a water-soluble vitamin that is a part of the B vitamin family. **Your result is mid-range for a nutrient critical in early pregnancy.**

WHAT TO DO ABOUT IT

- Folic acid before conception and in early pregnancy prevents neural tube defects.
- Folate and B12 interact; correcting one without the other can mask a problem.
- Leafy greens, legumes and fortified grains are the main dietary sources.
- Standard supplementation advice applies regardless of this score.

Gene **MTHFR**

Your genotype **AA**

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Vitamin A metabolism

Average — conversion from plant sources may vary

HIGHER = GREATER PREDISPOSITION



Vitamin A is a group of nutritional organic compounds that are of primary importance in the process of vision. It also plays an important role in the immune function of the body and in maintaining skin health. **Your result is mid-range for a nutrient obtained both directly and by conversion from carotenoids.**

WHAT TO DO ABOUT IT

- Orange and dark green vegetables supply the precursor form safely.
- Liver is extremely high in vitamin A and best eaten only occasionally.
- Avoid high-dose retinol supplements, particularly in pregnancy.
- Fat aids absorption, so eat carotenoid-rich vegetables with some oil.

Gene **BCM01**

Your genotype **AG**

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Magnesium metabolism

Average — commonly under-consumed regardless

HIGHER = GREATER PREDISPOSITION

5.7
/10

Magnesium is the fourth most abundant mineral in the body. It helps in maintaining normal nerve and muscle function, supports a healthy immune system, keeps the heartbeat steady, and helps bones remain strong. **Your result is mid-range for a mineral most people simply don't eat enough of.**

WHAT TO DO ABOUT IT

- Nuts, seeds, legumes, wholegrains and dark chocolate are the main sources.
- It can be measured on a routine blood test if symptoms suggest it.
- Cramps, twitching and palpitations can indicate low levels.
- Proton pump inhibitors used long term deplete magnesium.

Gene SHROOM3

Your genotype AA

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Vitamin E metabolism

Average — deficiency is rare

HIGHER = GREATER PREDISPOSITION

5.1
/10

Vitamin E, also known as tocopherols, is a class of fat-soluble vitamins. The primary role of vitamin E in the body is as an antioxidant, to neutralise the free radicals produced in the body, thereby preventing cellular damage. **Your result is mid-range for a nutrient rarely deficient in ordinary diets.**

WHAT TO DO ABOUT IT

- Nuts, seeds and vegetable oils supply this readily.
- Food sources are sufficient for almost everyone.
- High-dose supplements have been associated with harm rather than benefit.
- No testing or supplementation is indicated.

Gene CD36

Your genotype AA

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)

Vitamin B12 metabolism

Average — matters most on a plant-based diet

HIGHER = GREATER PREDISPOSITION

4.9
/10

Vitamin B12, or cobalamin, is a water-soluble vitamin involved in many metabolic pathways in our body. It is particularly important in the nervous system functioning and synthesis of myelin. **Your result is mid-range for a vitamin found almost exclusively in animal foods.**

WHAT TO DO ABOUT IT

- Supplement if you eat little or no animal produce; this is non-negotiable on a vegan diet.
- Absorption declines with age and with long-term metformin or PPI use.
- Deficiency causes nerve damage that can become permanent if prolonged.
- It is easily measured on a standard blood panel.

Gene **FUT2**

Your genotype **AA**

FULL GENE DETAIL ON THE REFERENCE PAGE

Copper metabolism

Average — deficiency is uncommon

HIGHER = GREATER PREDISPOSITION

4.8
/10

Copper is an essential mineral required for the production of red blood cells, maintaining the integrity of nerve cells, and regulating the immune system; it also plays a role in iron absorption and the formation of collagen. The main storage sites of copper in the body are the liver, brain, kidneys, and skeletal muscles. **Your result is mid-range for a trace mineral widely available in food.**

WHAT TO DO ABOUT IT

- Nuts, seeds, shellfish and wholegrains supply it adequately.
- High zinc supplementation can induce copper deficiency — a reason not to megadose zinc.
- No testing is indicated without specific symptoms.
- Food sources cover requirements comfortably.

Gene **SMIM1**

Your genotype **AA**

FULL GENE DETAIL ON THE REFERENCE PAGE

Antioxidant metabolism

Low predisposition — efficient handling

HIGHER = GREATER PREDISPOSITION

4.6
/10

Antioxidants are compounds that inhibit the oxidation process in the body. Certain processes can lead to the formation of oxidative species in the body, which can damage the cells and DNA, leading to impaired cellular functions. **A favourable result, suggesting your antioxidant systems work efficiently.**

WHAT TO DO ABOUT IT

- Eat a variety of coloured vegetables rather than taking antioxidant supplements.
- Smoking overwhelms any antioxidant advantage entirely.
- High-dose antioxidant supplements have repeatedly failed to show benefit.
- Variety of plants matters more than any single 'superfood'.

Gene **GSTP1**

Your genotype **AG**

FULL GENE DETAIL ON THE REFERENCE PAGE

Zinc metabolism

Low predisposition — your lowest score in the report

HIGHER = GREATER PREDISPOSITION

3.6
/10

Zinc is an essential mineral that has a vital role in cellular metabolism, DNA synthesis, regulation of immune function, wound healing, and protein synthesis. In the body, there is no storage system of zinc, therefore, requiring adequate dietary zinc intake. **This is your lowest result, suggesting zinc is handled efficiently.**

WHAT TO DO ABOUT IT

- Meat, shellfish, legumes and seeds supply zinc readily.
- Short courses for colds are reasonable; ongoing supplementation is not.
- Avoid long-term high-dose zinc supplements; they deplete copper.
- No action is needed on this result.

Gene **CA1**

Your genotype **AA**

FULL GENE DETAIL ON THE REFERENCE PAGE



IN SHORT

Four results stand out: vitamin B6, iron, phosphate and vitamin K. These are the ones worth discussing or testing rather than supplementing blindly.



Food intolerances and sensitivities

3 TRAITS

How you process specific dietary compounds — the results most likely to explain something you have already noticed.

Caffeine metabolism

Slow metaboliser — the clearest practical finding in your report

HIGHER = FASTER CAFFEINE CLEARANCE

2.7
/10

Caffeine is a central nervous system stimulant, present in beverages such as coffee, tea, energy drinks, and aerated drinks like cola. Caffeine invokes a sense of alertness and wakefulness upon consumption. **Your lowest score on this panel and one of its most useful: caffeine clears slowly for you.**

WHAT TO DO ABOUT IT

- Stop caffeine by early afternoon; for slow metabolisers it can affect sleep eight hours later.
- Watch hidden sources: tea, cola, energy drinks, dark chocolate and some painkillers.
- Keep intake modest — slow metabolisers show a less favourable cardiovascular response to high intake.
- If you sleep poorly, this is one of the first things worth changing.

Gene CYP1A2

Your genotype AA

FULL GENE DETAIL ON THE REFERENCE PAGE

Lactose intolerance

High — dairy may not agree with you

HIGHER = GREATER PREDISPOSITION

7.0
/10

Lactose, commonly called milk sugar, is a form of carbohydrate present in milk and other dairy products. It makes dairy products taste mildly sweet. The body starts metabolising lactose in the intestines with the help of lactase, an enzyme produced and released by the cells that line the small intestine. **Your result is high for reduced ability to digest lactose in adulthood, which is the global norm.**

WHAT TO DO ABOUT IT

- Hard cheeses and yoghurt are usually tolerated; milk is the main problem.
- Don't drop dairy entirely without replacing the calcium — that links to your calcium result.
- Lactase tablets work well if you want dairy occasionally.
- This is an enzyme issue, not an allergy, and symptoms are uncomfortable rather than dangerous.

Gene MCM6

Your genotype TC

FULL GENE DETAIL ON THE REFERENCE PAGE

Gluten sensitivity

High — but test for coeliac disease before excluding gluten

HIGHER = GREATER PREDISPOSITION

7.0
/10

Gluten is a form of storage protein that is stored together with starch in the seeds of various cereals such as wheat, barley, rye, and oats. Gluten in wheat is responsible for providing elasticity and making it rise during the baking process. **Your result is high, which makes proper testing more important rather than less.**

WHAT TO DO ABOUT IT

- Never start a gluten-free diet before coeliac testing; it makes the test unreliable.
- Ask for coeliac serology while still eating gluten normally.
- Coeliac disease and non-coeliac gluten sensitivity are different conditions with different consequences.
- If coeliac disease is excluded, a supervised trial exclusion is reasonable.

Gene FUT2

Your genotype AA

[FULL GENE DETAIL ON THE REFERENCE PAGE](#)



IN SHORT

Your caffeine result is the standout: you are a slow metaboliser, which means coffee stays with you far longer than it does for most people. That has real consequences for sleep.





Gene reference

27 GENES

The 27 genes behind your results. Several inform more than one trait, which is why the same gene appears on more than one card.

ACE

GENOTYPE

AA

The renin–angiotensin system (RAS) has been implicated in the development of DR, and inhibition the activity of RAS has shown to retard the DR. ACE is a dipeptidyl carboxypeptidase I (EC.3.4.15.1) that activates angiotensin I through cleavage of the carboxyterminal dipeptide into the potent vasoconstrictor angiotensin II and inactivates the vasodilator peptide bradykinin.

Informs: Response to carbohydrates

ADIPOQ

GENOTYPE

AG

This gene is expressed in adipose tissue exclusively. It encodes a protein with similarity to collagens X and VIII and complement factor C1q. The encoded protein circulates in the plasma and is involved with metabolic and hormonal processes.

Informs: Response to monounsaturated fats

AGTR1

GENOTYPE

AA

The protein encoded by this gene, pre-angiotensinogen or angiotensinogen precursor, is expressed in the liver and is cleaved by the enzyme renin in response to lowered blood pressure. The protein is involved in maintaining blood pressure and in the pathogenesis of essential hypertension and preeclampsia.

Informs: Salt metabolism

APOA4

GENOTYPE

AA

Variations in the APOA4 gene tend to have an influence on the particle size of low-density lipoprotein and its propensity for oxidative modifications in response to one's diet. Thus, variants of the APOA4 gene may modify the concentration of plasma LDL cholesterol following dietary fat intake.

Informs: Response to polyunsaturated fats

BCM01

GENOTYPE

AG

The protein encoded by this gene is a key enzyme in beta-carotene metabolism to vitamin A. It catalyzes the oxidative cleavage of beta- carotene into two retinal molecules. Vitamin A metabolism is important for vital processes such as vision, embryonic development, cell differentiation, and membrane and skin protection.

Informs: Vitamin A metabolism

BDNF

GENOTYPE

AG

This gene encodes a member of the nerve growth factor family of proteins. Binding of this protein to its cognate receptor promotes neuronal survival in the adult brain. Micronutrient Requirements Vitamin A Metabolism.

Informs: Ability to maintain weight loss

CA1

GENOTYPE

AA

Carbonic anhydrase 1 is an enzyme that in humans is encoded by the CA1 gene. Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes that is involved in the catalysis of reversible hydration of carbon dioxide.

Informs: Zinc metabolism

CASR GENOTYPE AG	The CASR gene provides instructions for making a protein called the calcium-sensing receptor (CaSR). Calcium molecules attach (bind) to CaSR, which allows this protein to monitor and regulate the amount of calcium in the blood. Informs: Phosphate metabolism
CBS GENOTYPE CC	Cystathionine β-synthase (CBS) protein encoded by CBS gene acts as a homotetramer to catalyze the change of homocysteine to cystathionine, the first step in the transsulfuration pathway, and causes overexpression of CBS which in turn reduces levels of homocysteine and induces functional folate deficiency. The pathway is involved in DNA synthesis and methylation. Informs: Vitamin B6 metabolism
CD36 GENOTYPE AA · AG	The CD36 gene encodes for a membrane-bound protein; CD36 is expressed in several cell types, including fat cells, muscle cells, and on certain taste bud cells where it is believed to mediate the perception of fatty acid. Informs: Fatty food preference · Response to saturated fats · Vitamin E metabolism
CYP1A2 GENOTYPE AA	The CYP1A2 gene encodes a liver enzyme that is critical for the breakdown of caffeine molecules into substances that can be excreted through urine. This function influences the amount of caffeine its effects in the body. Informs: Caffeine metabolism
CYP24A1 GENOTYPE AA	CYP24A1 encodes a cytochrome P450 enzyme that hydroxylates 1,25-(OH)2D, into metabolites targeted for degradation and appears to be one of the central regulator of 1,25-(OH)2-D metabolism. CYP24A1 is highly regulated by its own substrate 1,25(OH)2-D, as well as by PTH, serum phosphate and fibroblast growth factor-23 (FGF-23) Phosphate Metabolism. Informs: Calcium metabolism
DRD2 GENOTYPE CC	DRD2 is present as both presynaptic autoreceptors and postsynaptic receptors. Dopaminergic activation of presynaptic autoreceptors decreases both the release and synthesis of dopamine and increase dopamine reuptake. It is known that low-DRD2 binding is associated with increased drug reinforcing effects and the intensity of this reinforcement is proportional to dopamine release. Informs: Emotional eating
FTO GENOTYPE AA · TT	This gene is a nuclear protein of the AlkB related non-haem iron and 2-oxoglutarate-dependent oxygenase superfamily but the exact physiological function of this gene is not known. Other non-heme iron enzymes function to reverse alkylated DNA and RNA damage by oxidative demethylation. Informs: Satiety response · Response to fibre · Response to protein
FUT2 GENOTYPE AA	The FUT2 gene encodes for an enzyme (galactoside 2-alpha-L-fucosyltransferase 2), which influences the synthesis of H-antigen. The H- antigen plays a role in the attachment of H. pylori bacteria to the gastric mucosa; H. pylori infection can cause decreased secretion of glycoprotein intrinsic factor, which is required for vitamin B12 absorption in the gastrointestinal system. Informs: Vitamin B12 metabolism · Gluten sensitivity

GC GENOTYPE AA	The GC gene encodes the vitamin D binding protein (DBP) that belongs to the albumin gene family. The encoded protein has multiple functions and is found in the plasma, ascitic fluid, cerebrospinal fluid, and on the surface of many cell types. Informs: Vitamin D metabolism
GSTP1 GENOTYPE AG	Glutathione S-transferase P1 is an enzyme encoded by the GSTP1 gene. This enzyme plays a key role in the process of detoxification and the antioxidant system. Calcium Metabolism. Informs: Antioxidant metabolism
MCM6 GENOTYPE TC	A regulatory element (which is a specific DNA sequence), within the MCM6 gene, plays a key role in regulating the activity or expression of the LCT gene. The LCT gene encodes an enzyme, lactase, which helps in the metabolism of lactose. Informs: Lactose intolerance
MTHFR GENOTYPE AA	The protein encoded by this gene catalyzes the conversion of 5,10-methylenetetrahydrofolate to 5-methyltetrahydrofolate, a co-substrate for homocysteine remethylation to methionine. Genetic variation in this gene influences susceptibility to occlusive vascular disease, neural tube defects, colon cancer and acute leukemia, and mutations in this gene are associated with methylenetetrahydrofolate reductase deficiency. Informs: Vitamin B9 (folate) metabolism
near LEP GENOTYPE GA	Leptin is a peptide hormone secreted by adipocytes and encoded by the "fat gene" and can increase body energy expenditure along with decreased energy intake by suppressing appetite, thus playing a crucial role in metabolism and body growth mediation. Growth hormone IGF-1 is an important hormonal axis underlying infantile growth. Informs: Snacking pattern
SHROOM3 GENOTYPE AA	Shroom3 is an actin-associated protein that regulates epithelial cell shape and tissue morphogenesis. It is known to induce constriction of epithelial cells by promoting apical accumulation of actin and myosin fibres. Informs: Magnesium metabolism
SLC23A2 GENOTYPE AG	The absorption of vitamin C into the body and its distribution to organs requires two sodium-dependent vitamin C transporters. This gene encodes one of the two required transporters and the encoded protein accounts for tissue-specific uptake of vitamin C. Informs: Vitamin C metabolism
SMIM1 GENOTYPE AA	This gene encodes a small and conserved protein known to be implicated in red blood cell formation. The encoded protein is localized to the cell membrane and acts as an antigen for a blood group, implicated in transfusion reactions (Vel blood group). Informs: Copper metabolism

TAS1R3 GENOTYPE CC	There are differences in the sensitivity, perception, and preference for tastes. Taste sensitivity can be attributed to the threshold of activated taste cells. The sweet taste perception is primarily mediated by the TAS1R2 (taste receptor type 1 member 2) and TAS1R3 (taste receptor type 1 member 3) genes, which encode the major carbohydrate sweet taste receptor. Informs: Sweet taste perception
TAS2R38 GENOTYPE CT	The TAS2R38 gene encodes a G protein-coupled receptor, which acts as a taste receptor, and is mediated by certain chemicals like PROP and phenylthiocarbamide; these chemicals bind to the receptor and signal taste perception. Vegetables like broccoli, cabbage, kale, and Brussels sprouts, contain glucosinolates and isothiocyanates, which resemble PROP. Informs: Bitter taste perception
TF GENOTYPE AA	This gene encodes a glycoprotein with an approximate molecular weight of 76.5 kDa. Transferrins are iron binding transport proteins which can bind two Fe(3+) ions in association with the binding of an anion, usually bicarbonate. Informs: Iron metabolism
VKORC1 GENOTYPE CG	The VKORC1 gene provides instructions for making a vitamin K epoxide reductase enzyme. The VKORC1 enzyme is made primarily in the liver. It spans the membrane of a cellular structure called the endoplasmic reticulum, which is involved with protein processing and transport. Informs: Vitamin K metabolism

PUTTING IT TOGETHER

How to eat, practically

Protein and fibre at every meal

Your satiety and snacking scores are the two highest in the report, and protein and fibre are the only dietary levers that reliably move them. This single habit addresses more of this panel than anything else.

Move your last coffee earlier

You clear caffeine slowly. An afternoon coffee can still be affecting your sleep late into the evening, and poor sleep worsens appetite regulation — which feeds straight back into your top results.

Test before you supplement

Vitamin D and iron are both worth measuring. Vitamin B6 and zinc are specifically worth not megadosing — both cause harm in excess. Food covers almost everything else on this panel.

Get coeliac testing before cutting gluten

Your gluten and lactose results are both high, but they need different handling. Lactose can simply be reduced; gluten must be tested first, because coeliac serology is unreliable once gluten is removed.

IMPORTANT INFORMATION

Medical and legal disclosure

Please read this section in full. It sets out what this test can and cannot tell you, and the terms on which these results are provided.

01 Purpose of this report

This report provides information about genetic variants associated with nutrient metabolism, appetite regulation, taste perception and food intolerance. It is intended for general wellness and lifestyle purposes only. It is not a diagnostic test and must not be used to diagnose, treat, cure or prevent any disease or medical condition.

02 Not medical advice

Nothing in this report constitutes medical advice, and no doctor–patient relationship is created by its provision. You should not start, stop or alter any medication, treatment, therapy or medically supervised programme on the basis of these results without first consulting a qualified healthcare professional.

03 Scope of testing

This test analyses a defined panel of genetic variants selected for their reported association with the traits described. It is not whole-genome or whole-exome sequencing. It does not analyse all variants in the genes named, does not test for inherited disease-causing mutations, and cannot exclude the presence of variants outside the tested panel.

04 Basis of interpretation

Interpretations are derived from published, peer-reviewed genetic association studies. Such associations are statistical and population-based rather than deterministic; individual effect sizes are typically small, and a given result does not predict an individual outcome. Scientific understanding evolves, and interpretations may be revised as new evidence emerges.

05 Population applicability

Many of the underlying studies were conducted in specific ancestral populations and age groups. The strength and direction of an association may differ for individuals of other genetic ancestries or life stages, and results should be interpreted with this limitation in mind.

06 Genetics is one factor among many

Nutritional status is influenced substantially by overall diet quality, total energy intake, physical activity, gut health, medication, age, pregnancy, sunlight exposure and coexisting medical conditions. A favourable result does not guarantee an outcome, and an unfavourable result does not make one inevitable.

07 Sample identity and integrity

Results relate solely to the biological sample received and identified as belonging to the named individual. *[Laboratory name]* is not responsible for errors arising from mislabelled, contaminated, degraded or improperly collected samples, or from information supplied by the individual or a referring practitioner. Where sample identity is in doubt, a repeat sample should be submitted.

08 Analytical limitations

No genetic test is free of error. Genotyping may be affected by rare variants at primer or probe binding sites, allele dropout, sample quality and other technical factors. Any result with potential clinical significance should be confirmed by an accredited clinical diagnostic laboratory before being acted upon.

09 Excluded uses

This report is not validated or authorised for diagnostic, medico-legal, forensic, relationship or ancestry testing, and must not be used for insurance underwriting, employment screening, athlete selection or any other determination affecting an individual's rights, benefits or entitlements.

10 Regulatory status

Regulatory status of this test in the jurisdiction of issue: *[to be completed — e.g. laboratory developed test performed at [laboratory name], accreditation/licence number []; not evaluated by [regulator]].*

11 Diet and supplementation warning

This report does not diagnose or exclude coeliac disease, lactose intolerance, any food allergy or any nutritional deficiency, and is not a substitute for blood testing or dietetic assessment. Do not begin a gluten-free or other exclusion diet before appropriate testing, and do not begin high-dose supplementation on the basis of these results — several nutrients on this panel, including vitamin B6, iron, zinc and vitamin A, are harmful in excess. Discuss any significant dietary change with a qualified healthcare professional or registered dietitian.

12 Minors

Testing of individuals under the age of 18 requires the informed consent of a parent or legal guardian. Results for minors should be reviewed with a qualified healthcare professional.

13 Genetic data and privacy

Genetic information is sensitive personal data. It is processed on the basis of your consent, in accordance with *[applicable data protection law — e.g. GDPR / HIPAA / other]* and the *[Bio Healthcare Hub Privacy Notice, version and date]*. Sample and data retention period: *[]*. You may request access, correction, withdrawal of consent, or erasure by contacting *[data protection contact]*.

14 Confidentiality and disclosure

This report is prepared for the named individual and, where applicable, the referring practitioner. Onward disclosure to employers, insurers, coaches or other third parties is at your own discretion and risk, and may have consequences that Bio Healthcare Hub LLC cannot control or reverse.

15 Intellectual property

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16 Limitation of liability

To the fullest extent permitted by law, and except in respect of death or personal injury caused by negligence or any liability that cannot lawfully be excluded, Bio Healthcare Hub LLC accepts no liability for any loss, injury or damage arising from reliance on this report. *[Clause to be settled by counsel — governing law and jurisdiction: [].]*

17 Questions and complaints

For questions about these results, contact *[clinical support contact]*. To raise a concern about the service or the accuracy of this report, contact *[complaints contact and procedure reference]*.

REPORTED BY

Name, role and registration number

DATE OF ISSUE / REPORT VERSION

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