



NEXT GENERATION SEQUENCING

Gut DNA Report

Deep insights. Precise science.
Better gut health.



What we sequenced

30 species identified and 23 metabolic pathways scored from your stool DNA.



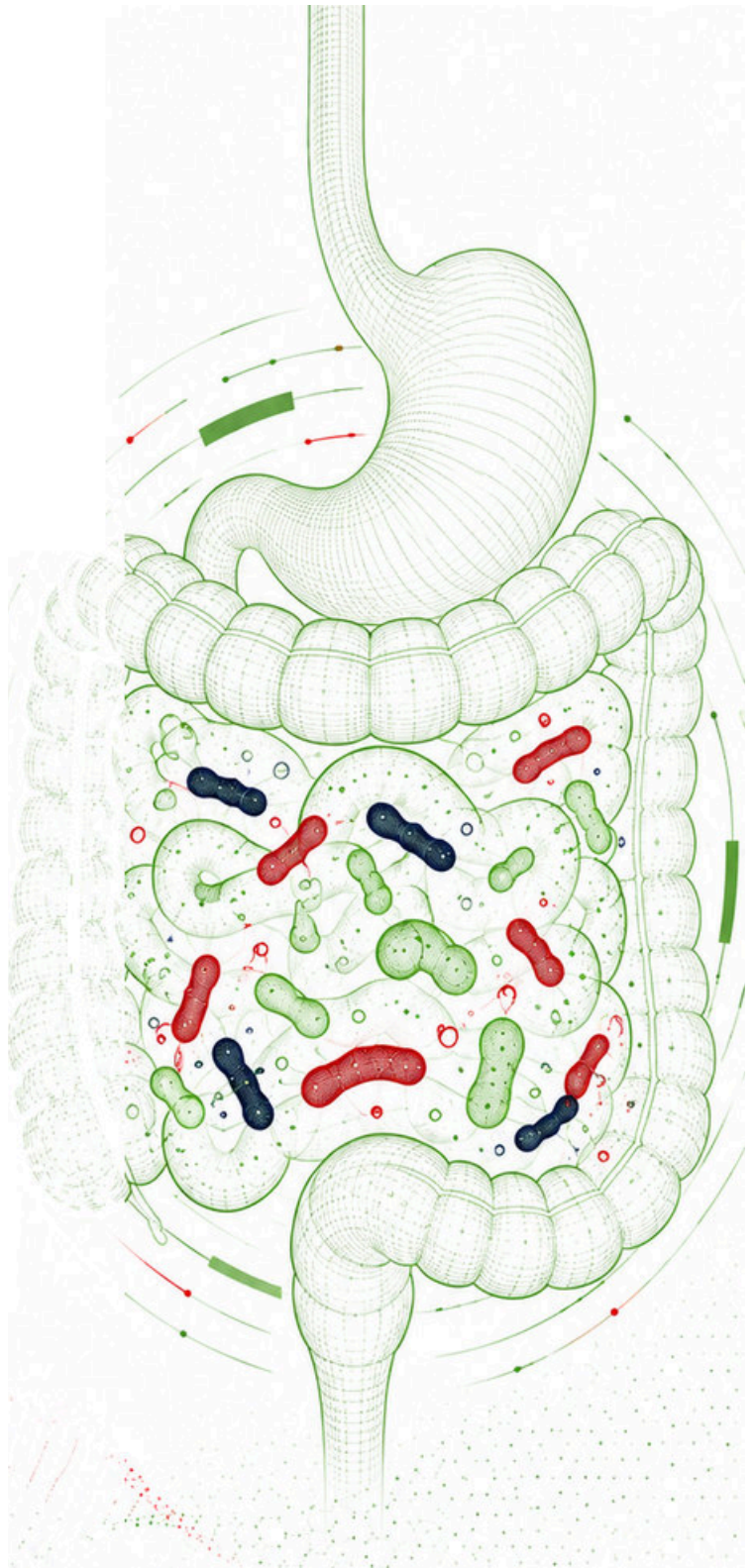
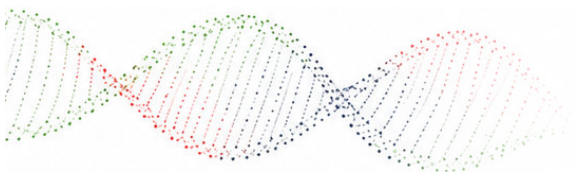
What we found

6 pathways performing strongly, 8 steady and 9 that need attention.



What to do next

Six priorities ranked for you, with a food plan and a twelve-week schedule.



REPORT DETAILS

PATIENT

Avani Mehta

DATE OF BIRTH

17 Dec 2000

LOCATION

London

ADVISOR

Dr Ralph Abraham

REPORT REF

2-1

SAMPLE TYPE

Stool, DNA sequencing

SAMPLE ID

REPORT DATE



01

01

READ THIS FIRST

Your results in sixty seconds

Your gut is home to trillions of microbes. We sequenced their DNA to see who lives there, how many of each, and what jobs they are doing. Here is the short version.

THE GOOD NEWS

Your overall gut health score sits in the excellent band

Helpful microbes clearly outnumber harmful ones. Six pathways are performing better than the reference group — including low inflammatory signalling, low endotoxin production and efficient protein digestion. Three of the five conditions we screen for show no risk species at all.

WHERE TO FOCUS

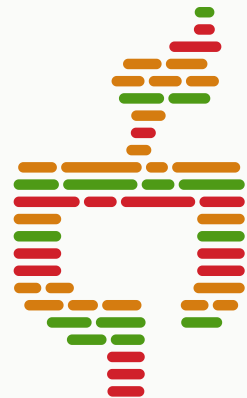
Your beneficial bacteria are thin on the ground

Three of your four probiotic species are below range, butyrate production is low, and your microbes are under-producing four B vitamins plus vitamin K. Your screen also flags a **high risk of impaired glucose tolerance**. All of it responds to diet — that is what sections 03 to 06 are for.

Your gut, drawn from your own results

This is your digestive tract — stomach, colon and rectum — built from the 23 metabolic pathways we scored in your sample. Each band is one pathway, using the same colours as the scoreboard in section 02: green where you are performing better than the reference group, amber where you sit inside the normal range, red where a pathway is running too high or too low. Hover any band to see which pathway it is.

- 6 STRENGTHS
- 8 STEADY
- 9 TO WORK ON



What we measured

PATHWAYS SCORED

23

6 favourable · 8 average · 9 unfavourable

SPECIES COUNTED

30

8 in range · 22 above or below range

CONDITIONS SCREENED

5

1 high risk · 1 low risk · 3 no risk species

ENTEROTYPE

3

Ruminococcus-dominant, 93%



How to read the colour coding

Every result is compared against a healthy reference group matched to your region. Three verdicts are possible:

FAVOURABLE

Better than the reference range. Keep doing what you're doing.

AVERAGE

Inside the normal range. Maintain it.

UNFAVOURABLE

Outside the range, high or low. Worth acting on.

A microbiome is not fixed. Composition shifts with what you eat, how you sleep, how much you move and which medicines you take — which is why the same test in twelve weeks can look different.



02

THE HEADLINE NUMBERS

Your snapshot

Four measures that summarise the whole sample: how balanced your microbiome is, how varied it is, which bacterial group runs the show, and how your pathways stack up.

02

GUT HEALTH SCORE

Excellent band

Combines composition, diversity and stability into one figure.



A score this high means commensals and probiotics outweigh pathogens and opportunists — which supports metabolism, immune function and energy production.

MICROBIOME RICHNESS

Room to grow

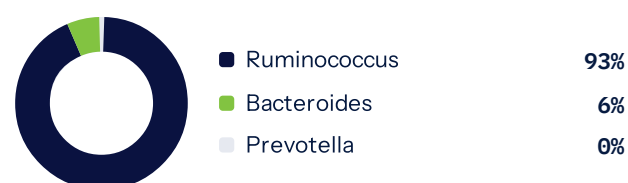
The total number of different microbial species detected.



Richness sits below the typical band. A greater variety of species means a more resilient gut, and variety in your diet is the single most reliable way to build it — see the 30-plants target in section 06.

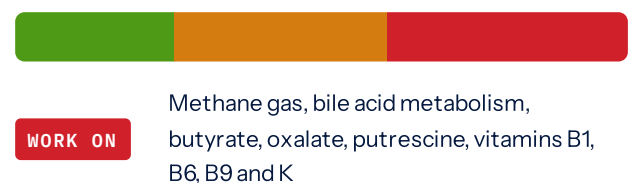
YOUR ENTEROTYPE

Type 3 — Ruminococcus



PATHWAY SCOREBOARD

9 of 23 need attention





Ruminococcus species specialise in moving simple sugars across the gut wall and can break down mucin, the protective mucus lining your intestine. This group draws energy from fermentable sugars in the colon and is associated with resistance to infectious diarrhoea. Because mucin-degraders are dominant here, feeding them plenty of dietary fibre matters — fibre gives them something to eat other than your gut lining.

STEADY

Salt stress, TMA, anti-inflammatory activity, vitamins B2, B3, B5, B7, B12

STRENGTHS

Ammonia, LPS, protein fermentation, pro-inflammatory activity, sulphide gas, uric acid

The pattern behind these numbers

Five of your nine unfavourable pathways are vitamin-synthesis pathways, and three of your four probiotic species are reduced. Those two findings are the same story told twice: you are short of the fibre-fermenting, vitamin-making bacteria that a varied plant-rich diet feeds. Your strengths — low ammonia, low endotoxin, low protein fermentation — say the opposite side of the ledger is in good shape. The plan in section 03 leans hard on one lever: more plant variety, less sugar and saturated fat.

03

WHAT TO DO ABOUT IT

Your six priorities

Ranked by how much difference each one is likely to make to your results. Every food named here is drawn from your own list in section 06.

03

01 Rebuild your Bifidobacteria

Three of your four probiotic species — *B. longum*, *B. bifidum* and *B. adolescentis* — came back reduced. These are the species that make butyrate, keep your gut wall sealed and crowd out troublemakers.

DO THIS One fermented food every day (kimchi, sauerkraut, fermented vegetables, water kefir) plus a prebiotic base at two meals: onion, garlic, asparagus, artichoke, lentils, chickpeas.

WATCH FOR Start with a small portion of fermented food and build up. A little extra wind in the first week is normal; sharp pain is not.



02 Get butyrate production up

Your butyrate pathway is low and *F. prausnitzii* — your main butyrate producer — is only just in range. Butyrate fuels the cells lining your colon; without enough, the barrier weakens and inflammation rises.

DO THIS Fibre at every meal from as many different plants as you can manage: brown rice, quinoa, sorghum, lentils, beans, broccoli, cabbage, kale, artichoke, asparagus, berries.

WATCH FOR Increase fibre over two to three weeks rather than overnight, and raise your water intake alongside it.

03 Protect your blood sugar

Your screen flags a high risk of impaired glucose tolerance, driven by low beneficial diversity. Catching this stage is exactly the point — it is the most reversible one.

DO THIS Pair every carbohydrate with protein, fat or fibre. Choose brown rice, quinoa and pulses over refined flour and white rice. Walk 10–15 minutes after your biggest meal.

WATCH FOR Ask Dr Abraham whether a fasting glucose or HbA1c test should be added to confirm the picture.

04 Cool the gas and bile picture

Methane production is high and bile acid metabolism is high. Together they explain bloating, wind and irregular bowels, and suggest fat is not being handled cleanly.

DO THIS Half your plate as vegetables and fruit at every meal. Cook with olive, flaxseed or rapeseed oil.

WATCH FOR Cut back on butter, coconut and palm oil, full-fat dairy, fried food, red and processed meat, and anything sweetened with table sugar or corn syrup.

05 Top up the vitamins your microbes aren't making

Vitamin K, B1, B6 and B9 synthesis all came back low — five of your nine unfavourable pathways are vitamin pathways. Food can cover the shortfall.

DO THIS Green leafy vegetables daily for K (kale, broccoli, cabbage, parsley, amaranth leaves). Sorghum, quinoa, banana, sunflower seeds and sweet potato for B6. Lentils, beans and greens for B9. Beans, nuts and brown rice for B1.

WATCH FOR Keep alcohol low — it blocks absorption of B1, B2, B6 and B9. Don't overcook greens; folate and vitamin K are heat-sensitive.

06 Lower your kidney-stone risk

Oxalate metabolism is low, meaning few of your microbes break oxalate down. More of it reaches your urine, and that is where stones start.

DO THIS 2.5–3 litres of water daily, and something calcium-containing with each meal — calcium binds oxalate in the gut before it reaches your kidneys.



WATCH FOR Skip spinach, rhubarb, chard and star fruit. Go easy on beets, potato, nuts and chocolate, and avoid high-dose vitamin C supplements.

One question for Dr Abraham

Your report flags a high risk of impaired glucose tolerance. Ask whether a fasting glucose or HbA1c blood test is worth adding, so the microbiome finding can be checked against your actual blood sugar. Bring this report to the appointment.

04

23 RESULTS IN DETAIL

What your microbes are doing

A pathway is a job your gut bacteria do together — making a vitamin, producing a gas, processing bile. We count the genes involved to judge whether the job is being done too little, too much, or about right. Results below start with what needs attention.

04

Methane gas production

UNFAVOURABLE

LOW

NORMAL

HIGH

Methane-producing microbes are overactive, which points to bacterial overgrowth. This is the pattern behind bloating, wind, constipation and sluggish motility, and it is linked to IBD and IBS.

- + Plenty of fruit and vegetables at every meal.
- Diets high in simple sugars or high in fat.

Butyrate production

UNFAVOURABLE

LOW

NORMAL

HIGH

Butyrate is the main fuel for your gut lining. Producing less of it weakens the barrier and raises inflammation; low levels are linked to IBS, IBD and bowel cancer.

- + Fruit, vegetables and whole grains for fibre, plus prebiotic and probiotic foods.
- High-fat meals and added sugars, including corn and glucose syrups.



Bile acid metabolism

UNFAVOURABLE

LOW

NORMAL

HIGH

More bile-processing bacteria than expected. Fat may not be emulsified and nutrients not absorbed properly, which tips the gut towards a pro-inflammatory state.

- + Cereals, pulses, fruit, vegetables and nuts for fibre at every meal.
- Simple sugars, saturated and trans fats; limit red meat.

Oxalate metabolism

UNFAVOURABLE

LOW

NORMAL

HIGH

Few oxalate-degrading species, so more oxalate passes into your urine — raising the risk of calcium oxalate kidney stones.

- + 2.5–3 litres of water daily; calcium with every meal to bind oxalate in the gut.
- Spinach, rhubarb, chard, star fruit; high sodium; high-dose vitamin C; high-fructose syrups; very high protein intakes.

Putrescine production

UNFAVOURABLE

LOW

NORMAL

HIGH

Polyamine output is low. Polyamines help suppress inflammatory signals such as IL-1, IL-6 and TNF- α , so normal physiology is affected.

- + Cereals, pulses, nuts, oilseeds, citrus fruit, aged cheese and live-culture foods.
- Heat-treated pork, excess alcohol, smoking.

Vitamin K synthesis

UNFAVOURABLE

LOW

NORMAL

HIGH

Gut bacteria normally supply about half your daily vitamin K, which your body needs for clotting, bone development and heart health. Yours are producing less.

- + Green leafy vegetables daily — the richest source.
- High-dose vitamin K supplements alongside warfarin; check with your doctor first.

Vitamin B1 synthesis

UNFAVOURABLE

LOW

NORMAL

HIGH

Low thiamine production. Thiamine drives energy metabolism and supports nerve, heart and immune function; shortfalls show up first as fatigue.

- + Cereals, beans, nuts and lean meat.
- Polished grains; thiamine blockers such as betel nut, strong tea with meals and raw fish.

Vitamin B6 synthesis

UNFAVOURABLE

LOW

NORMAL

HIGH

Low B6 production. B6 helps regulate the gut immune system; a shortfall tilts immune balance towards allergic and inflammatory responses.

- + Cereals, millets, pulses and nuts — plus sorghum, quinoa, banana and sweet potato.
- Excess alcohol.

Vitamin B9 synthesis

UNFAVOURABLE

LOW

NORMAL

HIGH

Low folate production. Folate builds DNA and red blood cells, and low levels are associated with anaemia and raised homocysteine.

- + Beans, lentils, dark leafy greens and cereals.
- Excess alcohol; overcooking fruit and vegetables, which destroys folate.

Salt stress

AVERAGE

LOW

NORMAL

HIGH

Salt levels in your gut are balanced, and so is the pathogen-to-probiotic mix that salt disturbs. Worth protecting.

- + Keep sodium under 2,300 mg — about 5 g of salt — a day. Choose fresh food over packaged; read labels.
- Adding salt at the table, high-sodium sauces and seasonings, processed and packaged meat.



Vitamin B12 synthesis

AVERAGE

LOW

NORMAL

HIGH

Your microbes are producing B12 in normal amounts, supporting red blood cells and nerve function.

- + Keep B12-rich foods in the diet in adequate amounts.
- Prolonged use of proton pump inhibitors, which block B12 absorption.

TMA production

AVERAGE

LOW

NORMAL

HIGH

Few TMA-producing bacteria, which is what a healthy gut looks like. TMA is used as a marker of kidney function.

- + Keep fibre intake steady.
- High-fat diets.

Anti-inflammatory activity

AVERAGE

LOW

NORMAL

HIGH

Normal anti-inflammatory signalling, indicating a balanced microbiome that is protecting you.

- + Anti-inflammatory foods and regular exercise.
- Short or irregular sleep, and unmanaged stress — both raise inflammation.

Vitamin B5 synthesis

AVERAGE

LOW

NORMAL

HIGH

Normal pantothenic acid production, which feeds energy metabolism and skin repair.

- + Keep B5-rich foods in adequate amounts.
- High-dose B5 supplements, which cause gastrointestinal upset.

Vitamin B7 synthesis

AVERAGE

LOW

NORMAL

HIGH

Normal biotin production — relevant to hair, nails and fat metabolism, and mildly anti-inflammatory.

- + Keep B7-rich foods in adequate amounts.
- Raw egg, which blocks biotin absorption.

Vitamin B3 synthesis

AVERAGE

LOW

NORMAL

HIGH

Normal niacin production. Niacin feeds NAD production and helps hold immune balance.

- + Keep B3-rich foods in adequate amounts.
- Uncooked grains, which limit how much B3 you can absorb.

Vitamin B2 synthesis

AVERAGE

LOW

NORMAL

HIGH

Normal riboflavin production, supporting cellular energy reactions.

- + Keep B2-rich foods in adequate amounts.
- Excess alcohol.

Ammonia production

FAVOURABLE

LOW

NORMAL

HIGH

Little toxic ammonia is being made, which means protein is being digested and cleared efficiently.

- + Adequate carbohydrate and regular exercise — low glucose pushes the body to break down amino acids instead.
- High sugar intake from corn or glucose syrups and table sugar.



LPS biosynthesis

FAVOURABLE

LOW

NORMAL

HIGH

Low endotoxin production, so less inflammatory load is crossing your gut wall into the bloodstream.

- + Anti-inflammatory foods and regular exercise.
- High-energy, high-fat diets, which raise endotoxin levels in the blood.

Protein fermentation

FAVOURABLE

LOW

NORMAL

HIGH

Few proteolytic bacteria, meaning protein digestion is efficient and fewer harmful by-products are being formed. Linked to good overall gut health.

- + Mix plant and animal protein, spread protein evenly across meals, and soak or sprout pulses before cooking.
- Processed meat.

Pro-inflammatory activity

FAVOURABLE

LOW

NORMAL

HIGH

Your bacteria are actively suppressing pro-inflammatory molecules — a genuine strength in this report.

- + Anti-inflammatory foods and regular exercise.
- Inflammatory foods, short sleep and chronic stress.

Sulphide gas production

FAVOURABLE

LOW

NORMAL

HIGH

Few sulphate-reducing bacteria, which is good news for your intestinal barrier and for gas symptoms.

- + Fermentable fibre — pectins, beta-glucan, inulin, oligofructose — which raises SCFA production.
- Processed foods.

Uric acid production

FAVOURABLE

LOW

NORMAL

HIGH

Purines are being broken down efficiently and uric acid cleared, which lowers your risk of gout.

- + 3–4 litres of fluid, coffee, and vitamin C foods such as orange, grapefruit, kiwi and peppers.
- Sugary foods and drinks; more than moderate alcohol.

05

WHO LIVES IN YOUR GUT

Your 30 species

Each species is measured against the healthy reference range and marked reduced, normal or elevated. Species fall into four groups by how they behave towards you.

05



Probiotics Species with known benefits — they regulate bowel activity, make protective compounds and hold pathogens back.

4 SPECIES

SPECIES	LEVEL	WHAT IT DOES FOR YOU	RESULT
<i>Bifidobacterium longum</i>	 REDUCED	A widely used probiotic that supports immune function, keeps your gut wall intact and acts as a toxin scavenger.	UNFAVOURABLE
<i>Bifidobacterium bifidum</i>	 REDUCED	Helps produce butyrate, digests dairy and complex carbohydrates, and blocks E. coli from taking hold.	UNFAVOURABLE
<i>Bifidobacterium adolescentis</i>	 REDUCED	Breaks down complex carbohydrates and keeps bowel movements regular by stimulating peristalsis.	UNFAVOURABLE
<i>Faecalibacterium prausnitzii</i>	 NORMAL	Your headline butyrate producer and a powerful anti-inflammatory. Worth protecting.	FAVOURABLE

Pathogens Species with the potential to cause disease. A healthy microbiome's main job is keeping them from colonising.

3 SPECIES

SPECIES	LEVEL	WHAT IT DOES FOR YOU	RESULT
<i>Streptococcus sobrinus</i>	 ELEVATED	An acid-producing oral bacterium linked to tooth decay through enamel demineralisation.	UNFAVOURABLE
<i>Bulleidia moorei</i>	 ELEVATED	Also known as Solobacterium moorei. Produces volatile sulphur compounds; associated with halitosis and dental infection.	UNFAVOURABLE
<i>Streptococcus anginosus</i>	 NORMAL	Part of normal gut flora and sitting at a normal level here.	FAVOURABLE

Opportunists Usually harmless residents that can cause problems if they overgrow or your immune system is under strain.

6 SPECIES

SPECIES	LEVEL	WHAT IT DOES FOR YOU	RESULT
<i>Dorea formicigenerans</i>	 ELEVATED	Rises alongside inflammatory markers; increased in psoriasis.	UNFAVOURABLE
<i>Haemophilus parainfluenzae</i>	 ELEVATED	Normally harmless. Raised levels have been reported in tuberculosis and primary biliary cirrhosis.	UNFAVOURABLE
<i>Veillonella dispar</i>	 REDUCED	Lower is favourable here — this species uses lactic acid and can contribute to dental caries.	FAVOURABLE
<i>Rothia dentocariosa</i>	 ELEVATED	A mouth and airway resident, largely benign, but shouldn't be prominent in the gut.	UNFAVOURABLE



SPECIES	LEVEL	WHAT IT DOES FOR YOU	RESULT
<i>Rothia mucilaginosa</i>	 ELEVATED	An opportunist from the oral cavity and upper airway.	UNFAVOURABLE
<i>Bacteroides fragilis</i>	 NORMAL	A useful commensal at normal levels, which is where yours sits.	FAVOURABLE

Commensals

Non-pathogenic residents that ferment dietary fibre into short-chain fatty acids, feeding your gut lining.

17 SPECIES

SPECIES	LEVEL	WHAT IT DOES FOR YOU	RESULT
<i>Lactobacillus mucosae</i>	 NORMAL	Supports lipid metabolism; studied for triglyceride and cholesterol-lowering effects.	FAVOURABLE
<i>Mitsuokella multacida</i>	 NORMAL	A butyrate producer with anti-inflammatory action.	FAVOURABLE
<i>Akkermansia muciniphila</i>	 NORMAL	Lives in the mucus layer and strengthens the gut barrier against diet-induced metabolic problems.	FAVOURABLE
<i>Eubacterium dolichum</i>	 ELEVATED	Converts lactate into acetate and butyrate.	FAVOURABLE
<i>Ruminococcus gnavus</i>	 ELEVATED	Feeds on sialic acid in your mucus layer and can trigger an inflammatory response above roughly 0.1% of the microbiome.	UNFAVOURABLE
<i>Collinsella aerofaciens</i>	 ELEVATED	Abundance has been linked to IBS and other digestive disorders.	UNFAVOURABLE
<i>Parabacteroides distasonis</i>	 ELEVATED	A core gut member, but higher levels are positively associated with obesity.	UNFAVOURABLE
<i>Ruminococcus bromii</i>	 ELEVATED	A resistant-starch specialist, releasing energy from starches you can't digest yourself.	UNFAVOURABLE
<i>Bacteroides caccae</i>	 ELEVATED	A fibre-degrading specialist; occasionally implicated in abdominal infections.	UNFAVOURABLE
<i>Bacteroides uniformis</i>	 ELEVATED	A predominant fibre degrader, active in the colon and lower small intestine.	UNFAVOURABLE
<i>Bacteroides ovatus</i>	 ELEVATED	Produces starch-hydrolysing enzymes; has potential probiotic effects against LPS-driven inflammation.	UNFAVOURABLE
<i>Bacteroides plebeius</i>	 ELEVATED	Specialises in degrading porphyran, the carbohydrate in red seaweed.	UNFAVOURABLE
<i>Lactobacillus ruminis</i>	 ELEVATED	Generally friendly, with immunomodulatory potential, but above range here.	UNFAVOURABLE



SPECIES	LEVEL	WHAT IT DOES FOR YOU	RESULT
<i>Eubacterium biforme</i>	 REDUCED	Part of the lactate-to-butyrate chain; currently below range.	UNFAVOURABLE
<i>Victivallis vadensis</i>	 REDUCED	A strictly anaerobic sugar fermenter, currently below range.	UNFAVOURABLE
<i>Prevotella stercora</i>	 REDUCED	A fibre-associated commensal, rarely involved in infection, currently below range.	UNFAVOURABLE
<i>Prevotella copri</i>	 REDUCED	Below range. At high levels it drives immune activation in conditions such as rheumatoid arthritis.	UNFAVOURABLE

06

YOUR FOOD PLAN

Eat plenty, limit, avoid

Built from your pathway scores. The first list feeds the bacteria you are short of; the last two starve the ones you have too many of.

06

Eat plenty — your 114 foods

These suit your results. Aim for **30 different plants a week** from this list — variety builds richness faster than quantity does. Tick them off as you go.



Vegetables

20

Green pepper Red pepper Yellow capsicum Capsicum Jalapeño peppers Cayenne pepper Chilli pepper
Alfalfa Celery Ginger Artichokes Asparagus Drumstick pods Red cabbage Cabbage
Brussels sprouts Cauliflower Broccoli Collards Kale



Fruits

23

Apple Apricot Avocado Berries Bilberries Blueberries Cherries Currants Grapes Mango
Papaya Pomegranate Pomefruit Prune Dried fruits Grapefruit Lemon Lime Orange
Sweet orange Tangerine Tomato Kiwi



Green leafy vegetables

12

Agathi leaves Colocasia leaves Cress Garden cress Khol-khol leaves Lettuce Green leaves



Mustard greens Mustard spinach Amaranth leaves Beet greens Dandelion greens



Legumes

16

Broad beans Scarlet beans Adzuki beans Black beans Chickpeas French beans Mung beans Soybeans
Winged beans Cowpeas Lentils Lima beans Moth beans Pink beans Peas Pinto beans



Cereals & millets

6

Corn Millet flour Amaranth grain Brown rice Sorghum Quinoa



Edible oils & fats

12

Olive oil Flaxseed oil Rice bran oil Sesame oil Sunflower oil Canola oil Safflower oil Grapeseed oil
Corn oil Mustard oil Peanut oil Soybean oil



Roots & tubers

5

Garlic Onion Stalk onions Carrot Arrowroot



Nuts & oilseeds

2

Flaxseeds Sesame seeds



Herbs & spices

8

Turmeric Parsley Oregano Peppermint Dill Fennel leaves Clover Red clover



Fermented & other

6

Kimchi Fermented foods Cocoa Spirulina (dried) Mushrooms Sweet dried whey



Drinks

4

Coffee Green tea Black tea Itadori tea



Limit — small amounts, not every day

Not off the table, but these add to the imbalance we found. Nuts and beets are here because your oxalate-clearing bacteria are low; hard cheeses and alcohol because of bile acid and vitamin pathways.



Milk & dairy

5

Cheddar cheese Parmesan cheese Swiss cheese Stilton cheese Plain low-fat yoghurt



Nuts & oilseeds

6

Almonds Chestnuts Hazelnuts Macadamia nuts Peanuts Pistachios



Roots & tubers

2

Beets Potato



Cereals

1

Crude rice bran



Drinks

1

Alcohol

Avoid — the ones working against you

Refined grains, saturated and hydrogenated fats, added sugars and high-oxalate greens. Each one feeds a pathway that is already running too hot: methane production, bile acid metabolism or oxalate handling.



Cereals & flours

13

Wheat Crude wheat bran Wheat germ Whole wheat bread Barley Oats Instant oats White rice
Refined flour All-purpose flour Corn flour Pasta Noodles



Fats & oils

10

Butter Coconut oil Palm oil Margarine Vegetable shortening Hydrogenated oils Milk cream



Full-fat dairy High-fat dressings Fried fast food



High-oxalate plants

4

Spinach Chard Rhubarb Star fruit



Milk & dairy

4

Milk Feta cheese Mozzarella Ricotta



Sugars

4

Table sugar Brown sugar Glucose syrup High-fructose corn syrup



Sweets & processed

7

Chocolate Candies Sweets & desserts Baked goods Ice cream Processed & packaged foods
High-sodium sauces & seasonings



Drinks

3

Carbonated drinks Energy drinks Packaged fruit drinks

06

PUTTING IT ON A PLATE

A day that fits your results

One worked example, using only foods from your eat-plenty list. Swap freely within the same category.

06

ON WAKING

Large glass of water with lemon. You are aiming for 2.5–3 litres across the day — your oxalate pathway depends on it.

Why this day works

- **Fibre at every meal** feeds butyrate producers and gives your mucin-degrading Ruminococcus something better to eat.
- **Fermented food daily** introduces live cultures to help rebuild your three reduced Bifidobacteria.



BREAKFAST

Quinoa or amaranth porridge with blueberries, banana and a spoon of ground flaxseed. Green tea.

LUNCH

Brown rice and brown lentil bowl with red cabbage, yellow capsicum, carrot and parsley, dressed with olive oil and lemon. A small side of kimchi or sauerkraut.

AFTERNOON

Apple with a tablespoon of sesame seeds, or a square of dried fruit. Coffee or peppermint tea.

DINNER

Chickpea, mushroom and kale traybake with garlic, onion and turmeric, or grilled fish with broccoli, asparagus and sorghum.

AFTER DINNER

A 10–15 minute walk. This is the single easiest thing you can do for the glucose finding.

- **Greens daily** covers the vitamin K your microbes are under-producing.
- **Seeds, pulses and sorghum** cover B1, B6 and B9.
- **No added sugar, low saturated fat** cools the methane and bile acid pathways.
- **Carbs paired with protein, fat or fibre** blunts the glucose spike behind your IGT flag.

A note on yoghurt and kefir

Live-culture foods help rebuild Bifidobacteria, but plain low-fat yoghurt and several cheeses appear on your limit list. Practical route: use non-dairy live-culture options such as coconut yoghurt, water kefir, sauerkraut, kimchi and other fermented vegetables, and raise dairy with Dr Abraham at your review.

07

NUTRIENT TOP-UPS

Foods that fill your specific gaps

Where your microbes are under-producing a nutrient, food can make up the difference. Percentages are the share of an adult reference intake per serving.

07

**Vitamin K**

LOW SYNTHESIS — TOP UP

Your synthesis pathway is low — this is the gap to close first.

Parsley	1 cup, chopped	984 mcg		1093%
Dandelion greens	1 cup, chopped	428 mcg		476%
Amaranth leaves	1 cup	319 mcg		355%
Broccoli	150 g	153 mcg		170%
Beet greens	1 cup	152 mcg		169%



Kale	1 cup	81.8 mcg		91%
Cabbage	100 g	76 mcg		84%



Vitamin B6

LOW SYNTHESIS — TOP UP

Low synthesis. B6 helps regulate your gut's immune response.

Sorghum	1 cup	0.85 mg		65%
Banana	1 medium	0.433 mg		33%
Sweet potato	1 medium	0.272 mg		21%
Quinoa	50 g	0.24 mg		18%
Sunflower seeds	1 tablespoon	0.123 mg		9%



Iron

SUPPORTING NUTRIENT

Supports the energy and oxygen-transport side of your B-vitamin findings.

Sorghum	1 cup	6.45 mg		36%
Brown lentils	50 g	3.7 mg		21%
Tofu	½ cup	3 mg		17%
Quinoa	50 g	2.28 mg		13%
Sesame seeds	1 tablespoon	1.32 mg		7%
Sunflower seeds	1 tablespoon	0.7 mg		4%



Vitamin A

SUPPORTING NUTRIENT

Supports the gut lining and immune barrier.

Sweet potato	1 medium	922 mcg		132%
Carrot	1 medium	509 mcg		73%
Turnip greens	1 cup, chopped	318 mcg		45%
Red bell pepper	1 medium	187 mcg		27%
Cantaloupe	1 medium wedge	117 mcg		17%



Vitamin B12

NORMAL — MAINTAIN



Your synthesis is normal — this is for maintenance, not correction.

Whey powder 30 g 1.04 mcg 43%

Reference intakes are general adult values and are not adjusted for pregnancy, medication or medical conditions. Vitamin K interacts with warfarin — if you take an anticoagulant, do not change your green-vegetable intake or start a vitamin K supplement without speaking to your doctor first.

08

CONDITION SCREEN

Five conditions, checked against your sample

Certain species patterns are associated with certain conditions. This is a risk signal from your microbiome, not a diagnosis — only a clinician can diagnose, and where no contributing species are detected, no risk can be calculated either way.

08

Impaired glucose tolerance

HIGH RISK

Blood glucose higher than normal but not yet in the diabetes range.

Contributing species detected: *Bifidobacterium longum*, *Escherichia coli*, *Clostridium symbiosum*

Your microbiome shows limited diversity of beneficial bacteria — particularly *Bifidobacterium*, which supports immune function and protects the colon — alongside a notable presence of less helpful species. That combination is associated with how efficiently the body handles carbohydrate and regulates blood sugar. This is the most reversible stage of the picture: your microbiome is not fixed, and targeted changes to diet, movement and gut health can meaningfully lower the risk.

Cirrhosis

LOW RISK

Scarring of liver tissue that impairs how the liver works.

Protective species detected: *Faecalibacterium prausnitzii*, *Lactobacillus ruminis*

Good result. Your gut carries a useful range of protective bacteria — *Faecalibacterium* and *Lactobacillus* among them — which help shield the intestinal lining, support digestion and reduce immune-related damage along the gut-liver axis. Less inflammation here means lower chronic disease risk overall.

Crohn's disease

NO RISK SPECIES DETECTED



Chronic inflammation that can affect any part of the digestive tract.

None of the contributing species for Crohn's were found in your sample, so no risk level can be calculated. That is reassuring but not a guarantee — family history, genetics, other autoimmune conditions and certain viral exposures all play a part that a stool test cannot see.

Ulcerative colitis

NO RISK SPECIES DETECTED

Chronic inflammation and ulcers in the lining of the colon and rectum.

No contributing species were detected, so no risk level can be calculated. Family history, genetic susceptibility and other autoimmune conditions still matter and are not measured here.

Type 2 diabetes

NO RISK SPECIES DETECTED

Persistently high blood glucose from insulin resistance or insufficient insulin.

No contributing species were detected for type 2 diabetes itself. Read this alongside the impaired glucose tolerance result above, which is flagged as high risk — IGT is the stage that precedes type 2 diabetes, so the guidance in that section is where your attention belongs.

09

THE NEXT TWELVE WEEKS

Start small, then stack

Changing everything at once rarely lasts, and your gut adapts gradually. Add one layer a week and keep the ones that stick.

09

WEEK 1

Water and sugar

- 2.5–3 litres of water daily — this alone lowers your kidney-stone risk from the oxalate finding.
- Cut sugary drinks, packaged fruit drinks and energy drinks completely.
- Swap white rice, white bread and refined pasta for brown rice, quinoa or sorghum.

WEEK 2

Add the live cultures

- One fermented food a day: kimchi, sauerkraut or another fermented vegetable.
- Prebiotic base at two meals: onion, garlic, asparagus, artichoke, lentils or chickpeas.
- Green leafy vegetables daily for vitamin K.

WEEK 3

Hit 30 plants



- Count different plants across the week — herbs, spices, seeds and pulses all count.
- Fibre at every meal, from your superfood list.
- Swap butter, coconut oil and margarine for olive, flaxseed or rapeseed oil.

WEEK 4 Move and review

- 10–15 minute walk after your largest meal, daily.
- Consistent sleep window — short sleep raises inflammatory signalling.
- Book your review with Dr Abraham and bring this report.

WEEK 12 Retest

- Repeat the gut test to see how richness, butyrate and your Bifidobacteria have moved.
- Twelve weeks is long enough for real change and short enough to stay motivated.

Track these three

Number of different plants each week, days with a fermented food, and days you hit your water target. If those three move, your next report will too.

When to get in touch sooner

Persistent abdominal pain, blood in your stool, unexplained weight loss, ongoing diarrhoea or new severe symptoms are not things to manage with diet. Contact your GP or advisor directly.

10

REFERENCE

Words, method, small print

10

Glossary

Microbiome — the full community of microbes living in your gut, plus their genes.

Eubiosis / dysbiosis — a balanced microbial community, and an unbalanced one.

Richness — how many different species are present. More variety, more resilience.

Enterotype — which bacterial group dominates your gut: Bacteroides, Prevotella or Ruminococcus.

Phylum — a broad branch of the bacterial family tree.

Firmicutes and Bacteroidetes make up about 90% of a typical gut.

Pathway — a chemical job performed by your microbes, scored by counting the genes involved.

Probiotic — a species with a known benefit to you.

Commensal — a resident that neither helps nor harms much, but ferments fibre into useful acids.



Opportunist — usually harmless, capable of causing trouble if it overgrows or your immunity dips.

Pathogen — a species with the potential to cause disease.

SCFA — short-chain fatty acids such as butyrate, acetate and propionate, made when microbes ferment fibre.

Butyrate — the main fuel for the cells lining your colon and a strong anti-inflammatory.

Prebiotic — fibre that feeds beneficial bacteria: inulin, pectin, beta-glucan, oligofructose.

Mucin — the protective mucus layer of your gut wall; some microbes eat it when fibre runs short.

LPS — lipopolysaccharide, an endotoxin from certain bacteria that can trigger inflammation.

TMA / TMAO — compounds made from choline and carnitine, used as markers of kidney and heart risk.

Oxalate — a natural food compound that binds calcium and can form kidney stones if not cleared.

Reference group — a healthy, geographically matched population your results are compared against.

Method

Bacterial DNA was extracted from your stool sample and sequenced. Species were identified and quantified against a curated reference database, then compared with percentile ranges from a healthy, geographically matched reference group. Pathway scores are derived from the abundance of genes known to take part in each metabolic pathway and reported as low, normal or high activity. Interpretations draw on peer-reviewed literature current at the time of reporting.

How to use this report

What this report is for

- Understanding which bacteria are living in your gut and what they are doing.
- Guiding day-to-day choices about food, fibre, hydration, sleep and movement.
- Giving you and your advisor a shared starting point for a conversation.
- Providing a baseline you can measure against when you retest.

What it is not for

- Diagnosing, treating, curing or preventing any disease.
- Replacing a consultation, examination or blood test.
- Deciding on your own to start, stop or change any prescribed medication.
- Ruling a condition in or out — a risk signal is not a result.

Suggested order of use

Read sections 01 and 02 for the overall picture, then work from section 03 — the six priorities are ranked, so start at one rather than trying to act on everything. Use section 06 when you shop and cook, and section 09 to pace the changes across twelve weeks. Bring the report to your appointment; sections 04, 05 and 08 are the ones your advisor will want to see.

Medical disclaimer



This report is a wellness and educational analysis of a gut microbiome sample. It is **not a medical diagnosis**, not a diagnostic test, and not a substitute for professional medical advice, examination or treatment. It has not been evaluated as a diagnostic device by any regulatory authority, and no clinical decision should rest on it alone.

Results describe your sample as it was at one moment in time, compared against a healthy reference population. Microbiome composition shifts with diet, illness, travel, antibiotics, sample handling and time, so a repeat test may differ. Where a condition is marked **no risk species detected**, no risk could be calculated — it does not mean you are not at risk. Where a risk is flagged, it reflects associations reported in published research, not a finding that you have or will develop that condition.

Always talk to your advisor, GP or pharmacist before making significant dietary changes or starting supplements or probiotics — particularly if you are pregnant or breastfeeding, under 18, immunocompromised, living with a chronic condition, or taking prescribed medication such as an anticoagulant. Never stop or alter prescribed treatment on the basis of this report. If you have a history of disordered eating, work through the food sections with a clinician rather than alone.

Seek medical attention promptly for persistent abdominal pain, blood in your stool, unexplained weight loss, prolonged diarrhoea or vomiting, fever, or any new or worsening symptom. These require assessment and are not addressed by dietary change.

Your data. This report contains personal health information. It is handled under Bio Healthcare Hub's privacy policy and applicable UK data protection law, and should be shared only with people you choose to share it with.

Bio Healthcare Hub™ · Predict · Prevent · Protect · Report ref 2-1 · Advisor: Dr Ralph Abraham · Questions about this report should go to your advisor in the first instance.