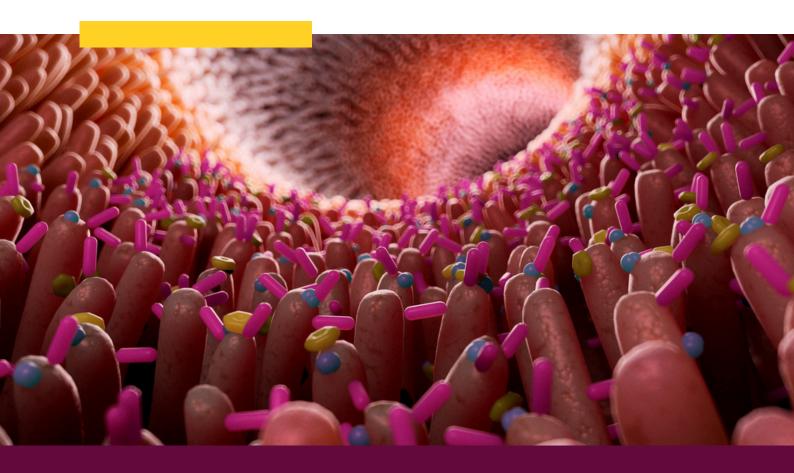


GUT MICROBIOME TEST REPORT



Client Name: SHWETHA

ID: BS20250219

Sample Received Date: [DD-MM-YYYY] **Report Generation Date:** [DD-MM-YYYY]

Developed by:

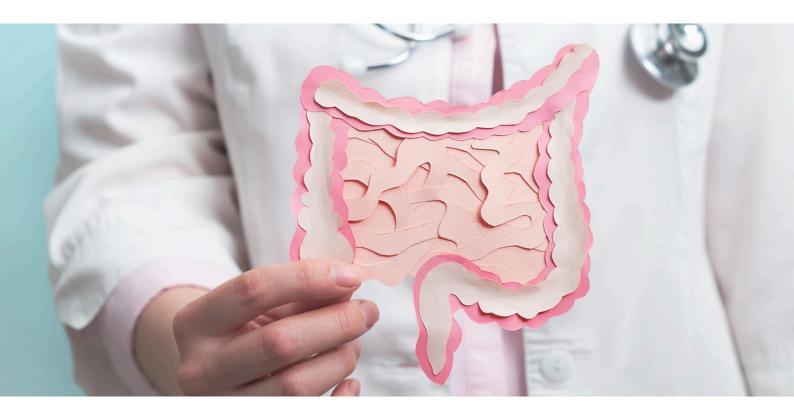
Biomend Life Sciences Pvt. Ltd.Powered by Next-Gen Gut Microbiome
Sequencing

About This Report

This report provides a comprehensive analysis of your gut microbiota — the community of microorganisms residing in your digestive tract — using advanced genomic sequencing. Your gut microbiome plays a critical role in digestion, metabolism, immune regulation, and even mood.

Using our proprietary algorithms and evidence-based models, we assess your microbial composition, functional potential, and risk indicators. Based on your profile, we also provide a phased nutritional intervention plan designed to restore, rebuild, and maintain optimal gut health.

Note: This is not a diagnostic report. It is intended to complement clinical evaluation by qualified healthcare professionals.



1. Summary Report

This section summarizes the overall status of your gut microbiome, based on major health-relevant categories. Values are compared against healthy population data to assess risk or imbalance.

Category	Status	Clinical Interpretation
Overall Gut Health	Below Optimal	Gut microbiota shows signs of imbalance; recovery is possible with appropriate intervention.
Microbial Diversity	Reduced	Lower species diversity may reduce resilience and functional potential.
Beneficial (Probiotic) Species	Below Average	Multiple key strains are deficient or absent.
Potential Pathogens	Average	Presence of several species associated with gut dysbiosis and inflammation.
SCFA & Vitamin Production	Below Optimal	Short-chain fatty acid and vitamin synthesis capacity is compromised.
Post-Antibiotic Recovery Potential	High	Microbiome shows strong signs of regenerative ability after antibiotic use.
Neurotransmitter Support	Suboptimal	Lower potential for mood- and cognition-regulating metabolites.
Risk for Disease Susceptibility	Moderate	Elevated susceptibility to select chronic and lifestyle-related disorders.

Your Gut Health Score: 0.78



Key Takeaway: Your gut microbiome is moderately imbalanced. Several beneficial microbes are lacking, while potential pathogens are elevated. With targeted dietary strategies and probiotic support, your microbiome can be brought back to a healthier state.

2. Detailed Report

Section-wise clinical insights based on category tags:

- Optimal Within healthy range
- Below Optimal Needs monitoring or improvement
- Needs Intervention May impact health; action required

1. Kingdom Distribution

Assesses the balance of core microbial kingdoms in your gut.

Kingdom	Your Value	Healthy Range	Category
Bacteria	9.959%	97.9 – 99.1%	Optimal
Fungi	16%	0.36 - 0.86%	Low
Archaea	7%	0.11 - 0.28%	Low
Protozoa / Metazoa	10%	0.21 - 0.51%	Low
Viruses	8%	0.25 - 1.06%	Low

Clinical Insight: Your gut microbiome is dominated by bacteria, which is typical, but the diversity of other kingdoms is reduced. This may limit certain metabolic and protective functions. Improvement in fungal and archaeal representation is recommended through diet and microbial support.

2. Top Abundant Species

Most abundant bacteria detected:

Species	Relative Abundance (%)
Prevotella copri	35.652 %
Phocaeicola plebeius	7.014 %
Phocaeicola vulgatus	4.300 %
Faecalibacterium prausnitzii	3.946 %
Megamonas funiformis	2.555 %
Roseburia inulinivorans	2.144 %
Lachnospira eligens	1.734 %
Phocaeicola copracola	1.186 %
Prevotella stercorea	1.015 %
Bacteroides fragilis	0.912 %

Most abundant Virus detected:

Species	Relative Abundance (%)
uncultured crAssphage	0.068 %
crAssphage cr7_1	0.068 %
crAssphage cr124_1	0.068 %
crAssphage cr13_1	0.068 %
Felixounavirus TPI	0.011 %

Most abundant Eukaryota detected:

Species	Relative Abundance (%)
Eimeria maxima	0.011 %
Emiliania huxleyi	0.011 %
Naegleria gruberi	0.011 %
Naegleria lovaniensis	0.011 %
Plasmodium chabaudi	0.011 %
Plasmodium gallinaceum	0.011 %
Tetrahymena thermophila	0.011 %
Theileria annulata	0.011 %

Most abundant Archae detected:

Species	Relative Abundance (%)
Methanobrevibacter smithii	0.034%
Halobiforma haloterrestris	0.011 %
Methanobrevibacter oralis	0.011 %
Methanococcus maripaludis	0.011 %

Most abundant Fungi detected:

Species	Relative Abundance (%)
Aspergillus glaucus	0.011 %
Aspergillus libericus	0.011 %
Aspergillus thermomutatus	0.011 %
Bipolaris maydis	0.011 %
Exophiala xenobiotica	0.011 %
Letharia columbiana	0.011 %
Morchella sextelata	0.011 %
Paracoccidioides lutzii	0.011 %
Sordaria macrospora	0.011 %
Torulaspora delbrueckii	0.011 %

Clinical Insight: Some beneficial bacteria are present in good numbers, but overdominance of certain species like *Prevotella copri* may reduce diversity. A balanced intake of dietary fiber and polyphenols can help restore equilibrium.

3. Foundation Microbiota (KeystoneSpecies)

These species stabilize the microbiome ecosystem.

Keystone Species	Relative Abundance Range (%)	Your Sample Value	Conclusion
Akkermansia muciniphila	0.003% - 0.014%	0.388 %	Typical
Bifidobacterium longum	1.142% - 3.743%	0.331 %	Atypical
Faecalibacterium prausnitzii	0.235% - 3.008%	3.946 %	Typical
Lactobacillus paracasei	0.004% - 0.014%	0.023 %	Typical
Lactobacillus rhamnosus	0.047% - 0.102%	0.24 %	Typical
Lactiplantibacillus mudanjiangensis	0.028% - 0.099%	0.00 %	Atypical
Lactobacillus amylovorus	0.020% - 0.092%	0.00 %	Atypical
Lactobacillus delbrueckii	0.004% - 0.013%	0.011 %	Typical
Lactobacillus helveticus	0.003% - 0.010%	0.00 %	Atypical
Ligilactobacillus ruminis	0.273% - 0.586%	0.114 %	Atypical
Ligilactobacillus salivarius	0.005% - 0.011%	0.00 %	Atypical
Limosilactobacillus fermentum	0.006% - 0.019%	0.00 %	Atypical
Limosilactobacillus mucosae	0.044% - 0.200%	0.00 %	Atypical
Limosilactobacillus reuteri	0.007% - 0.021%	0.034 %	Typical
Roseburia intestinalis	0.285% - 0.690%	0.844 %	Typical
Ruminococcus bromii	0.061% - 0.171%	0.274 %	Typical

Clinical Insight: Some beneficial bacteria are present in good numbers, but overdominance of certain species like *Prevotella copri* may reduce diversity. A balanced intake of dietary fiber and polyphenols can help restore equilibrium.

4. Probiotic Characterization

Analyzes presence of beneficial microbes commonly used as probiotics

Supplementation Needed	Follow Recommendations	Follow your Current Diet
Lactobacillus pentosus	Bifidobacterium adolescentis	Bifidobacterium infantis
Lactobacillus acidophilus	Lactobacillus lactis	Limosilactobacillus reuteri
Lactiplantibacillus plantarum	Bifidobacterium bifidum	Lacticaseibacillus rhamnosus
Ligilactobacillus salivarius	Bifidobacterium longum	Bifidobacterium breve
Lacticaseibacillus casei		Streptococcus thermophilus
Levilactobacillus brevis		Lacticaseibacillus paracasei
Lactobacillus johnsonii		Akkermansia muciniphila*
Bacillus coagulans		
Limosilactobacillus fermentum		
Lactobacillus caucasicus		
Lactobacillus helveticus		
Saccharomyces boulardii		
Saccharomyces cerevisiae		
Lactobacillus gasseri		
Bacillus clausii		
Bacillus subtilis		

Clinical Insight: Your microbiome is lacking several strains known to aid digestion, immunity, and mood. Supplementing with multi-strain probiotics and fermented foods is recommended.

5. Pathogen Characterization

Checks for organisms knownto cause inflammation or infections.

Bacterial Pathogens / Primary Pathogens:

Species	Status
Campylobacter jejuni	Nothing to Worry
Clostridioides difficile	Nothing to Worry
Escherichia coli	Caution
Helicobacter pylori	Nothing to Worry
Salmonella enterica	Nothing to Worry
Shigella dysenteriae	Nothing to Worry
Vibrio cholerae	Nothing to Worry
Yersinia enterocolitica	Nothing to Worry

Worms:

Species	Status
Giardia intestinalis	Nothing to Worry
Necator americanus	Nothing to Worry
Trichuris trichiura	Nothing to Worry
Ancylostoma duodenale	Nothing to Worry
Ascaris lumbricoides	Nothing to Worry

Fungi / Yeast:

Species	Status
Candida albicans	Nothing to Worry
Candida glabrata	Nothing to Worry
Candida tropicalis	Nothing to Worry
Candida parapsilosis	Nothing to Worry
Candida krusei	Nothing to Worry
Aspergillus fumigatus	Nothing to Worry
Aspergillus flavus	Nothing to Worry
Aspergillus niger	Nothing to Worry
Aspergillus terreus	Nothing to Worry
Aspergillus nidulans	Nothing to Worry

Dysbiotic / Overgrowth Bacteria:

Species	Status
Citrobacter freundii	Nothing to Worry

Opportunistic Bacteria:

Species	Status
Bacillus cereus	Nothing to Worry
Enterococcus faecalis	Nothing to Worry
Enterococcus faecium	Caution
Listeria monocytogenes	Nothing to Worry
Pseudomonas aeruginosa	Nothing to Worry
Staphylococcus aureus	Nothing to Worry
Staphylococcus epidermidis	Nothing to Worry
Staphylococcus saprophyticus	Nothing to Worry
Streptococcus agalactiae	Nothing to Worry
Streptococcus pneumoniae	Nothing to Worry

Protozoa:

Species	Status
Blastocystis hominis	Nothing to Worry
Chilomastix mesnilii	Nothing to Worry
Cryptosporidium	Nothing to Worry
Dientamoeba fragilis	Nothing to Worry
Endolimax nana	Nothing to Worry
Entamoeba coli	Nothing to Worry
Entamoeba histolytica	Nothing to Worry
Pentatrichomonas hominis	Nothing to Worry

Potential Autoimmune Triggers:

Species	Status
Klebsiella pneumoniae	Nothing to Worry
Mycobacterium avium	Nothing to Worry
Proteus mirabilis	Nothing to Worry
Citrobacter freundii	Nothing to Worry
Fusobacterium nucleatum	Nothing to Worry

Clinical Insight: Several potential pathogens are present at levels above ideal. Clinical correlation is suggested in case of symptoms (e.g., IBS, bloating,fatigue). Anti-inflammatory nutrition and gut cleansing may help reduce burden.

6. Antibiotic Resistance Genes (ARGs)

Indicates potential resistance to common antibiotics.

Susceptible

Amikacin	Ceftazidime+Avibactam	Kasugamycin	Penicillin	Spiramycin
Aminocoumarin	Ceftriaxone	Lincomycin	Phenicol	Streptothricin
Amoxicillin	Cephalothin	Lincosamide	Piperacillin	Sulfamethoxazole
Amoxicillin+Clavulanic_A cid	Cephamycin	Linezolid	Piperacillin+Tazobactam	Teicoplanin
Ampicillin	Ciprofloxacin	Meropenem	Pleuromutilin	Telithromycin
Ampicillin+Clavulanic_Aci d	Clindamycin	Methicillin	Pristinamycins_la	Temocillin
Avilamycin	Colistin	Minocycline	Pristinamycins_IIa	Tetracenomycin
Azithromycin	Dalforpristin	Monobactam	Quinupristin	Tetracycline
Aztreonam	Diaminopyrimidine	Mupirocin	Quinupristin+Dalforpristi n	Thiostrepton
Benzalkonium_Chloride	Doxycycline	Nalidixic_Acid	Rhodamine	Tiamulin
Bicyclomycin	Elfamycin	Nitrofuran	Rifampin	Ticarcillin
Bleomycin	Ertapenem	Nitroimidazole	Rifamycin	Ticarcillin+Clavulanic_Aci d
Carbapenem	Erythromycin	Oleandomycin	Spectinomycin	Tigecycline
Carbomycin	Florfenicol	Amikacin	Amoxicillin	Tobramycin
Cefepime	Fosfomycin	Aminocoumarin	Ampicillin	Triclosan
Cefixime	Fusidic_Acid	Amoxicillin+Clavulanic_A cid	Ampicillin+Clavulanic_Aci d	Trimethoprim
Cefotaxime	Gentamicin	Avilamycin	Azithromycin	Tylosin
Cefotaxime+Clavulanic_A cid	Glycylcycline	Aztreonam	Benzalkonium_Chloride	Vancomycin

Cefotixin	Hygromycin	Bicyclomycin	Bleomycin	Viomycin
Ceftazidime	Imipenem	Carbapenem	Carbomycin	Virginiamycin_M
Virginiamycin_S	Zorbamycin			

Resistant

Streptomycin

Clinical Insight: Low presence of resistance genes is a positive sign. No clinicalaction required unless under active antibiotic therapy.

7. Microbiota Recovery Potential

Evaluates the ability to bounce back after antibiotic exposure.





Clinical Insight: Your microbiota showsgood resilience. Recovery potential post-antibiotic therapy is favorable.

8. Short-Chain Fatty Acids (SCFA) Production

SCFAs support colon health and reduce inflammation



Clinical Insight: SCFA production is suppressed, often due to low fiber or loss of producers like *Roseburia* and *Eubacterium*. Include resistant starch, whole grains, and prebiotic-rich foods.

9. Vitamin Production Potential

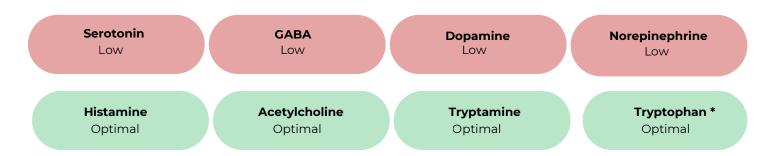
Certain microbes produceessential B and fat-soluble vitamins



Clinical Insight: Gut-based vitamin synthesis is suboptimal. Support with dietary sources and microbial restoration.

10. Neurotransmitter Production

Gut microbes influence brain chemistry.



Please Note: * Tryptophan is a precursor of many neurotransmitters.

Clinical Insight: You may experience impacts on mood, stress resilience, or sleep. Probiotic support and adequate sleep can help restore neurochemical balance.

11. Propensity to Disease Development

Risk prediction based on microbiota-linked conditions

Gut Related Diseases:

Disease	Risk
Inflammatory Bowel Disease	Low Risk
Irritable Bowel Syndrome	Low Risk
Leaky Gut	Low Risk
Obesity	Moderate Risk
Ulcerative Colitis	Low Risk
Clostridium Difficile Infection	Low Risk
Colorectal Neoplasm	Low Risk
Constipation	Low Risk
Crohn's Disease	Low Risk

Lifestyle Diseases & Traits:

Disease / Trait	Risk
Aerobic Endurance	Unfavorable
Muscle Strength	Favorable
Physical Endurance	Fair
Prone to Fatigue	Unlikely
Diabetes Mellitus Type 2	Low Risk
Hypertension	Low Risk
Sleep	Unfavorable

Other Diseases:

Disease	Risk
Depression	Low Risk
Non-Alcoholic Fatty Liver Disease	Low Risk
Rheumatoid Arthritis	Moderate Risk
Anxiety	Moderate Risk
Atherosclerosis	Low Risk
Chronic Kidney Disease	Low Risk

Clinical Insight:

While many disease risks are low, the profile suggestsmoderate risk for metabolic and inflammatory disorders. Preventive lifestyle modification is advised.

3. Nutritional Report

Personalized DietaryIntervention Based on Gut Microbiome Profile

Plan Structure

Our dietary program follows a three-phase approach designed to:

- 1. Restore gut integrity and reduce inflammation
- 2. Rebuild beneficial microbes using targeted nutrition
- 3. Maintain a balanced, resilient gut ecosystem

Each food item is tagged for frequency:



Include Regularly

Can be consumed daily or frequently



Include in Moderation

Limit to 2-3 times per week



Avoid for Now

Not recommended during this phase



Phase 1: RESTORE(2 Weeks)

Reduce inflammation, eliminate harmful microbes, and reset gut environment.

Category	Recommended Foods	Frequency
1. Green Vegetables	Ash gourd (<i>Kumbalanga</i>), bottle gourd (<i>Churakka</i>), snake gourd (<i>Padavalanga</i>), ridge gourd (<i>Peechinga</i>), drumstick (<i>Muringakka</i>), bitter gourd (<i>Pavakka</i>)	Regularly
	Cabbage, cauliflower, beetroot, carrot	Moderately
	Potato, colocasia (<i>Chembu</i>)	Avoid
2. Cereals, Herbs & Condiments	Kerala red rice (<i>Matta ari</i>), foxtail/little/kodo millets, turmeric, ginger, cumin, curry leaves, cold-pressed coconut oil	Regularly
	Whole wheat (<i>Godhambu</i>), Maida, sugar, bakery items	Avoid
3. Fruits	Banana (<i>Njali poovan</i>), papaya, guava, gooseberry (<i>Nellikka</i>), raw jackfruit (<i>Chakka</i>)	Regularly
	Mango, watermelon, custard apple	Moderately
	Canned fruits, sweetened juices	Avoid
4. Egg, Meat & Fish	Boiled egg, sardines (<i>Mathi</i>), mackerel (<i>Ayla</i>), anchovies (<i>Natholi</i>) – if essential	Occasionally
	Chicken (grilled/boiled), prawns	Avoid
5. Milk & Fermented Products	Homemade curd (<i>Thairu</i>), buttermilk (<i>Moru</i>), pazhankanji (fermented rice porridge)	Moderately
	Pasteurized milk, flavored yogurt, cheese	Avoid
6. Supplements (Probiotics & Prebiotics)	Natural: curd, idli/dosa batter, pazhankanji; Prebiotics: garlic (<i>Veluthulli</i>), banana stem (<i>Vazhapindi</i>), jackfruit seed flour	Regularly
	Commercial probiotic/prebiotic supplements (if prescribed)	Moderately

Phase 2: REBUILD (8 Weeks)

Repopulate beneficial microbes, enhance metabolic function, and restore microbial diversity.

Category	Recommended Foods	Frequency
1. Green Vegetables	Spinach (<i>Cheera</i>), amaranth greens, bitter gourd (<i>Pavakka</i>), beetroot, raw papaya, drumstick (<i>Muringakka</i>),	Regularly
	Cabbage, carrot, French beans	Moderately
	Potato, colocasia (<i>Chembu</i>)	Avoid
2. Cereals, Herbs & Condiments	Millets (kodo, little, pearl), red rice (<i>Matta ari</i>), quinoa, turmeric, curry leaves, cumin, fenugreek (<i>Uluva</i>)	Regularly
	Oats, semolina (<i>Rava</i>), whole wheat	Moderately
	Maida, sugar, processed masalas	Avoid
3. Fruits	Banana (<i>Njali poovan</i>), papaya, guava, gooseberry (<i>Nellikka</i>), custard apple, pomegranate	Regularly
	Mango, jackfruit, chikoo (<i>Sapota</i>)	Moderately
	Sweetened juices, fruit preserves	Avoid
4. Egg, Meat & Fish	Boiled egg, sardines (<i>Mathi</i>), mackerel (<i>Ayla</i>), chicken (grilled/boiled), Prawns, tuna, shellfish	Moderately (2– 3×/week)
	Red meat, fried fish/meat	Avoid
5. Milk & Fermented Products	Homemade curd (<i>Thairu</i>), buttermilk (<i>Moru</i>), fermented idli/dosa batter, pazhankanji	Regularly
	Yogurt with fruit, kefir, pickled lime (Naranga achar)	Moderately
	Pasteurized milk, processed cheese	Avoid
6. Supplements (Probiotics &	Natural: curd, fermented dosa/idli batter, pazhankanji; Prebiotics: garlic, banana stem, jackfruit seed, onions	Regularly
	Probiotic capsules (if prescribed)	Moderately

Phase 3: MAINTAIN (2 Weeks & Ongoing)

Sustain a diverse and resilient microbiome through balanced, consistent dietary habits.

Category	Recommended Foods	Frequency
1. Green Vegetables	All seasonal greens: amaranth (<i>Cheera</i>), spinach, bitter gourd (<i>Pavakka</i>), raw banana, drumstick (<i>Muringakka</i>), ash gourd, ridge	Regularly
	Beetroot, carrot, French beans, cauliflower	Moderately
	Colocasia (<i>Chembu</i>), tapioca (<i>Kappa</i>) – if fried or in excess	Avoid
2. Cereals, Herbs & Condiments	Millets, Kerala red rice (<i>Matta ari</i>), turmeric, ginger, curry leaves, fenugreek	Regularly
	Whole wheat (Godhambu), rice-based dosa/appam, oats	Moderately
	Refined flour (maida), sugary baked goods	Avoid
3. Fruits	Papaya, banana, guava, gooseberry (<i>Nellikka</i>), orange, apple, pomegranate	Regularly
	Jackfruit, mango, chikoo (<i>Sapota</i>), watermelon	Moderately
	Sweetened or canned fruits, artificial juices	Avoid
4. Egg, Meat & Fish	Boiled egg, chicken (grilled or curry), sardines (<i>Mathi</i>), mackerel (<i>Ayla</i>), anchovies (<i>Natholi</i>)	Regularly
	Tuna, prawns, shellfish	Moderately
	Fried meats, red meat (beef/pork)	Avoid
5. Milk & Fermented	Homemade curd, buttermilk (<i>Moru</i>), yogurt with fruit, fermented rice (<i>Pazhankanji</i>), kefir	Regularly
	Light milk tea, ghee	Moderately
	Flavored yogurts, processed cheese	Avoid
6. Supplements (Probiotics &	Daily curd, fermented foods, banana stem, garlic, onion, jackfruit seed flour	Regularly
	Probiotic/prebiotic capsules (as advised by doctor)	Moderately

General Recommendations

- Dietary Plan: Based only on your gut microbiome profile (not genetics or other health conditions).
- Meals & Quantities: Approximate; seek professional advice for personalized needs.
- · Millets: Introduce gradually, one type at a time; soak overnight before cooking.
- Exercise: Minimum 30 minutes of moderate activity daily.
- Hydration: At least 2 litres of water per day (supports high-fibre diet).
- Sleep: Minimum 7 hours of quality sleep each night.

Medications & Supplements



- Supplements: Suggested based on microbiome profile; product choice is yours.
- Probiotics: Mild bloating/gas is common initially. Stop and consult a doctor if persistent (>1 week).
- · Healthcare Guidance: Inform your clinician before major lifestyle or medication changes.

If Diabetic / At Risk



- Avoid sweetened beverages (sugar, jaggery, honey).
- Limit high-carb foods (rice, wheat, millets) to ≤25% of each meal.
- Follow the Plate Method: prioritize proteins (tofu, sprouts, legumes, peanuts, eggs, chicken, fish) and salads before grains.
- Prefer early dinners to support digestion and glucose control.
- Do not alter medications/insulin without medical supervision.

If IBS or IBD / At Risk

- FODMAP foods: FODMAP = Fermentable Oligosaccharides, Disaccharides, Monosaccharides & Polyols (carbohydrates that can cause gas, bloating, or discomfort).
- Use Low-FODMAP foods in Phases 1–2; reintroduce High-FODMAP foods slowly in Phase 3 to test tolerance.
- Avoid dairy (except curd/buttermilk), wheat, barley, sugary drinks, and packaged juices.
- Maintain a food diary to track triggers; reintroduce cautiously (except dairy/gluten).
- Work with a dietitian for safe and supervised reintroduction.

If Autoimmune / At Risk (e.g., Rheumatoid Arthritis)

- Avoid dairy (except curd/buttermilk) and gluten.
- Supportive lifestyle: good sleep, exercise, yoga, swimming, stress management.
- Keep a food diary; eliminate triggers, reintroduce gradually (except dairy/gluten).

RE-TEST

Recommended after 4 months to assess improvement and for a refined dietary recommendations and meal plan for long term implementation.

Microbiome Handbook

A Clinical Guide to Gut-Linked Conditions

The following summaries explain how your gut microbiome may influence various health conditions. These insights are drawn from peer-reviewed research and clinical microbiome science. A balanced gut microbiome contributes to optimal digestion, immunity, metabolism, brain function, and physical performance. Dysbiosis (imbalance) can impact the conditions listed below.

Condition	Microbiome Link (with Species)	Clinical Note
Constipation	Low Roseburia, Ruminococcus, Bifidobacterium	Slower transit time, harder stools, increased inflammation
Clostridium difficile Infection	Loss of <i>Lactobacillus</i> , <i>Bacteroides</i> ; overgrowth of <i>C. difficile</i>	May follow antibiotics; causes diarrhea, colitis
Leaky Gut	Reduced Akkermansia muciniphila, Faecalibacterium prausnitzii	Weakens gut lining, promotes systemic inflammation
Inflammatory Bowel Disease (IBD)	Increased Escherichia coli, decreased Bacteroides fragilis	Triggers immune flare-ups in intestines
Crohn's Disease	Elevated E. coli, decreased Faecalibacterium prausnitzii, Bifidobacterium	Linked to deep tissue inflammation and ulcers
Ulcerative Colitis	Low Bacteroides, Akkermansia, high Enterobacteriaceae	Disrupts colon lining; worsens mucosal injury
Type 2 Diabetes Mellitus	High Desulfovibrio, Prevotella copri, low Bifidobacterium	Affects insulin signaling and glucose tolerance
Obesity	Increased Firmicutes (e.g., Clostridium), low Bacteroidetes	Enhances energy harvesting, fat storage
Non-Alcoholic Fatty Liver Disease (NAFLD)	Overgrowth of Enterobacteriaceae, Escherichia, low Blautia	Drives hepatic fat and inflammation

Condition	Microbiome Link (with Species)	Clinical Note
Hypertension	Low Lactobacillus, Faecalibacterium; high Prevotella	Linked to poor nitric oxide modulation and inflammation
Atherosclerosis	Elevated Enterobacter, Collinsella, Eggerthella lenta	Bacterial byproducts may damage arteries
Chronic Kidney Disease (CKD)	Overgrowth of Enterococcus, Clostridium; reduced Bifidobacterium	Promotes toxin build-up and renal stress
Anxiety	Low Lactobacillus johnsonii, B. longum, Blautia	Disrupts serotonin and GABA production
Fatigue	Low Butyrivibrio, Faecalibacterium, Ruminococcus	Weakens stress resilience and gut-brain communication
Sleep Disturbances	Low Bifidobacterium, Lactobacillus, Coprococcus	Reduces melatonin precursors; disturbs rhythm
Colorectal Neoplasm	Elevated Fusobacterium nucleatum, low Bifidobacterium, Roseburia	Promotes inflammation, tumor growth
Rheumatoid Arthritis	Increased <i>Prevotella copri</i> , decreased <i>Bifidobacterium</i>	Alters immune response and systemic inflammation
Physical Endurance	Higher Veillonella atypica, Lactobacillus support performance	Enhances recovery and oxygen usage
Aerobic Endurance	Presence of Veillonella atypica, Propionibacterium, Lactobacillus plantarum	Supports lactic acid processing and endurance
Muscle Strength	Eubacterium hallii, Roseburia, Butyricicoccus aid metabolism	SCFAs reduce inflammation and boost repair

Scientific References

- 1. Belkaid Y, Hand TW. Role of the microbiota in immunity and inflammation. Cell. 2014;157(1):121–141.
- 2. Bernstein CN, Forbes JD. Gut Microbiome in Inflammatory Bowel Disease and Other Chronic Immune Mediated Inflammatory Diseases. Inflamm Intest Dis. 2017;2(2):116–123.
- 3. Bhattarai Y, Muniz-Pedrogo DA, Kashyap PC. Irritable bowel syndrome: a gut microbiota-related disorder? 2017;312(1):G52–G62. Am J Physiol Gastrointest Liver Physiol.
- 4. Bouter KE, Van Raalte DH, Groen AK, Nieuwdorp M. Role of the gut microbiome in the pathogenesis of obesity and obesity-related metabolic dysfunction. Gastroenterology. 2017;152(7):1671–1678.
- 5. Engevik MA, Versalovic J. Biochemical features of beneficial microbes: Foundations for therapeutic microbiology. Microbiol Spectr. 2017;5(5).
- 6. Evrensel A, Ceylan ME. The gut-brain axis: The missing link in depression. Clin Psychopharmacol Neurosci. 2015;13(3):239–244. Guidelines:
- 7. Guarner F, Khan AG, Garisch J, et al. World Gastroenterology Organisation Global probiotics 2012;46(6):468–481. and prebiotics. J Clin Gastroenterol.
- 8. Han S, Gao J, Zhou Q, Liu S, Wen C, Yang X. Role of intestinal flora in colorectal cancer from the metabolite perspective: a systematic review. Cancer Manag Res. 2018;10:199–206.
- 9. Jiang HY, Zhang X, Yu ZH, et al. Altered gut microbiota profile in patients with generalized anxiety disorder. J Psychiatr Res. 2018;104:130–136.
- 10. Jie Z, Xia H, Zhong SL, et al. The gut microbiome in atherosclerotic cardiovascular disease. Nat Commun. 2017;8(1):845.
- 11. Karlsson FH, Fåk F, Nookaew I, et al. Symptomatic atherosclerosis is associated with an altered gut metagenome. Nat Commun. 2012;3:1245.

- 12. Kedia S, Rampal R, Paul J, Ahuja V. Gut microbiome diversity in acute infective and chronic inflammatory gastrointestinal diseases in North India. J Gastroenterol. 2016;51(7):660–671.
- 13. Krych Ł, Nielsen DS, Hansen AK, Hansen CH. Gut microbial markers are associated with diabetes onset, regulatory imbalance, and IFN-y level in NOD mice. Gut Microbes. 2015;6(2):101–109.
- 14. Li J, Zhao F, Wang Y, et al. Gut microbiota dysbiosis contributes to the development of hypertension. Microbiome. 2017;5(1):14.
- 15. Ma N, Guo P, Zhang J, et al. Nutrients mediate intestinal bacteria–mucosal immune crosstalk. Front Immunol. 2018;9:5.
- 16. Pérez-Cobas AE, Artacho A, Ott SJ, Moya A, Gosalbes MJ, Latorre A. Structural and functional changes in the gut microbiota associated with Clostridium difficile infection. Front Microbiol. 2014;5:335.

Frequently Asked Questions (FAQs)

1. Is this report a diagnostic tool?

No. It's an informational tool meant to guide supportive or preventive health measures. Always consult your doctor for diagnosis.

2. What is being measured in this test?

The composition and function of your gut microbiome using shotgun metagenomic sequencing.

3. Can the disease associations predict if I have the disease?

No. They indicate microbiome patterns linked to risk, not clinical diagnosis.

4. Are the nutritional recommendations customized?

Yes, they are based on your microbiome profile. However, they are general and not disease-specific.

5. What is 'Recovery Potential'?

It estimates how well your microbiota might bounce back after antibiotic use.

6. Can probiotics or prebiotics fix my gut health?

They can help, but lasting improvement comes from sustained diet and lifestyle changes.

7. Should I follow the nutrition plan only for 3 months?

You may continue it long-term, especially the Maintain Phase, for lasting benefits.



THANK YOU

We are ready to assist you

Your microbiome profile offers key health insights, and our team is here to guide you with personalized advice and support for better well-being.



Bio360 Life Sciences Park, Thonnakal, Trivandrum, Kerala, India 695317





+91 70127 97567

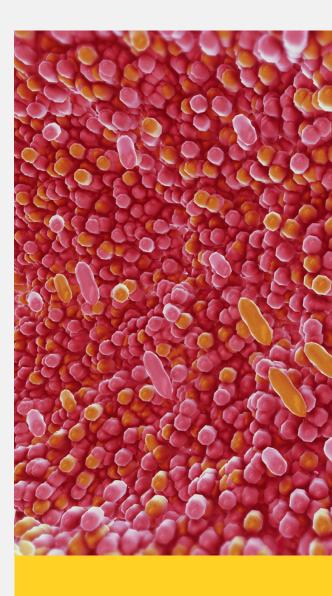
info@biomend.in



www.biomend.in

FOLLOW US ON

<u>Instagram</u> <u>Facebook</u> <u>LinkedIn</u> <u>Twitter</u> <u>Threads</u> <u>Youtube</u>



"All disease begins in the gut"

- Hippocrates, Father of Medicine