



Advancing Human Health Through Microbiome Science

# Gut Microbiome Profile

Report Number:  
B2DB-HFX6-YASE

Prepared For:  
Test User 95

Sample Received  
Date: 07-03-2024

## Thank you for choosing the AMILI Gut Health Test!

Did you know that our bodies host 100 trillion microbes, many of which reside in the gut, collectively known as the gut microbiome? This vast ecosystem holds 2-3 million genes — compared to just 23,000 in the human genome — revealing a remarkable complexity that far exceeds human genetics.

The gut microbiome, which can weigh up to 2-3 kilograms (Yes, 2-3% of your body weight is microbial!), was once thought to be mainly involved in digestion. However, we know now because of advances in genetic analysis and computing power that the microbiome plays a critical role in many areas of health, including mental well-being, cardiovascular health, immune function, and the risk of chronic diseases. For example, identical twins with different microbiome profiles may experience 8-10 times difference in blood sugar responses to the same foods.

At AMILI, we are committed to advancing gut microbiome science and translating these findings into clinically meaningful insights. We hope you find this report valuable and encourage you to retest every 3-6 months to track changes in your microbiome over time.

Thank you for placing your trust in AMILI's expertise and commitment to scientific excellence.



Dr Jeremy Lim  
Chief Executive Officer

This report is for research use only and is not a diagnostic evaluation. Please consult your healthcare provider for any questions regarding the diagnosis, treatment, mitigation, or prevention of any disease, medical condition, or health impairment.

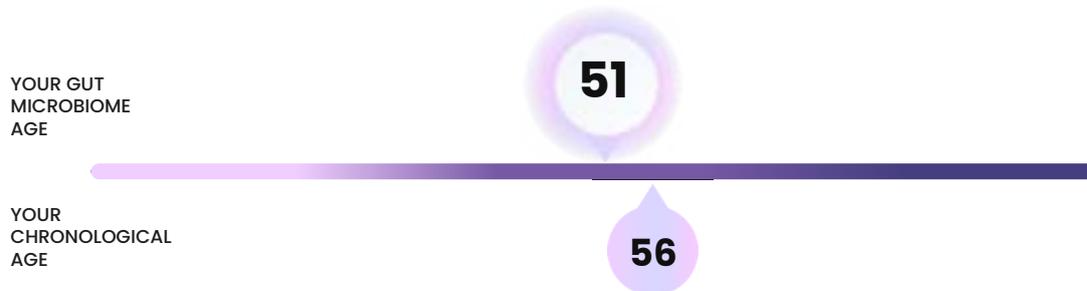


# Your Microbiome Health

A snapshot of your gut  
microbiome health

## + Your Gut Microbiome Age

Your Gut Microbiome Age is estimated based on the types of bacteria found in your gut, which naturally shift as we age. While your chronological age reflects the number of years you've lived, this measure provides insight into how your gut health may relate to your biological aging process.<sup>1</sup>



Your gut is **5 years younger** than your chronological age.

### LOW BIOLOGICAL AGE ▼

Suggests your gut profile resembles that of a younger individual. This may reflect healthier aging patterns and beneficial microbial activity.

### HIGH BIOLOGICAL AGE ▼

Indicates your gut profile is more similar to that of an older individual. This may be influenced by inflammation, chronic health conditions, or lifestyle factors.

This is not a medical diagnosis. Results are based on gut microbiome patterns from a healthy Asian population and may vary for individuals with medical conditions or different backgrounds.

## + Your AMILI Functional Scores



### Gut Brain Axis

Examines gut microbial processes that impact sleep, mood, focus and mental performance.



### Immunity & Metabolism

Focuses on microbes supporting heart, liver, pancreas and immune health.



### Digestion

Tracks how food is digested by the microbiome to improve nutrient absorption and overall digestive health.

AMILI Functional Scores are calculated from bacterial abundances and key functions, and are measured on a scale from 1 to 10.

## + Your Diversity Indicator

Measures the overall diversity of bacterial groups in your microbiome and reflects the richness and evenness of all bacterial species.<sup>2</sup>



**POOR ▼**

May suggest fewer species of gut bacteria are present, hence leading to increased risks of health conditions. This imbalance may arise from lifestyle or medical conditions.

**GOOD ▼**

Indicates a healthy, resilient gut with a variety of beneficial bacteria.

**GREAT ▼**

Indicates a balanced gut microbiome that supports healthy metabolism and reduces risks associated with both obesity and inflammation.

## + Your Microbiome Composition

These key bacteria populations help us understand how your gut health may impact overall well-being.

**Proteobacteria:**

Elevated levels are linked to inflammation and obesity.<sup>3</sup>

**Actinobacteria:**

Contribute to gut microbial balance and are associated with aging-related shifts in gut composition.<sup>4</sup>

**Bacteroidetes:**

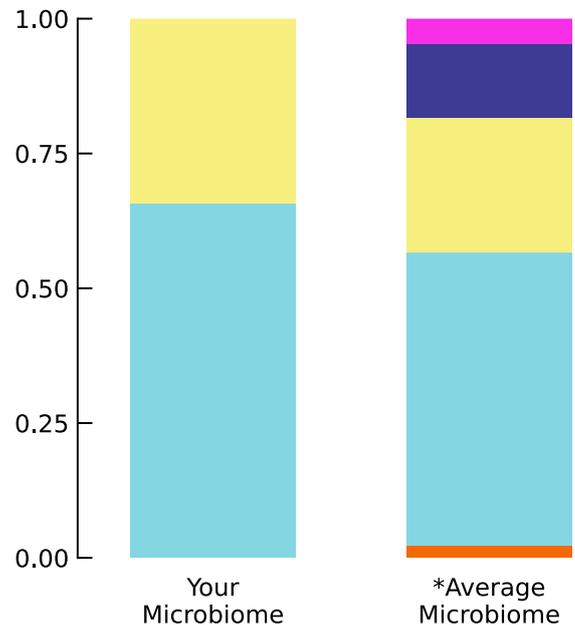
Play a key role in digestion and support weight management by aiding nutrient metabolism.<sup>5</sup>

**Firmicutes:**

Protect the gut lining and facilitate energy and fat absorption, potentially impacting weight and metabolism.<sup>6</sup>

**Fusobacteria & Others:**

High levels can produce toxins contributing to inflammation.<sup>7</sup>



\*Calculated based on healthy individuals in AMILI's multi-ethnic asian database.

## + Your Firmicutes to Bacteroidetes Ratio



### LOW RATIO ▼

Linked to inflammation risk (more Bacteroidetes, fewer Firmicutes).

### OPTIMUM RATIO ▼

Indicates a balanced gut microbiome that supports healthy metabolism and reduces risk associated with both obesity and inflammation.<sup>8</sup>

### HIGH RATIO ▼

Linked to higher obesity risk (more Firmicutes, fewer Bacteroidetes).

## + Your Microbiome Balance Indicator

Evaluates the abundance of beneficial to potentially harmful bacteria, helping to identify whether your microbiome is resilient or at risk of dysbiosis.<sup>9</sup>



### POOR ▼

Your gut shows an imbalance, with reduced beneficial bacteria and a higher proportion of diseased associated bacteria, which may impact gut health and overall resilience.

### GOOD ▼

Your gut has a balanced abundance of beneficial to harmful bacteria, indicating no major signs of microbial imbalance.

### GREAT ▼

Your gut has abundant beneficial bacteria compared to harmful ones, reducing the risk of dysbiosis and supporting overall well-being.

## Your Dietary Recommendations

These recommendations are personalised based on your unique needs and your **AMILI Functional Scores**. We highlight foods to help improve lower-scoring pathways and maintain those already in good shape. With a lower **Gut-Brain Axis, Immunity & Metabolism, Digestion** score, do prioritise incorporating these foods into your diet to help improve your gut health outcomes.

### Gut-Brain Axis

- Mood Regulation
- Sleep Quality
- Cognitive Performance

2

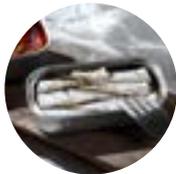
POOR



Alfalfa



Almond



Anchovies

### Immunity & Metabolism

- Inflammation Control
- Heart Health
- Energy Optimisation

3

POOR



Acai Bowl



Apple



Apple Cider Vinegar

### Digestion

- Nutrient Absorption
- Gut Barrier Integrity
- Vitamin Biosynthesis

2

POOR



Achar



Artichoke



Avocado

## Your Precision Probiotics



### Amili Probiotics Formulation 2

Designed to improve your overall physical and mental well-being. The formulation supports heart health, bile acid metabolism, mood, sleep, and stress. <sup>10</sup>

For more information, please refer to: Our Probiotics Details page.

A microscopic view of a cell membrane, showing a large, curved, purple structure on the right and a series of smaller, blue, spherical structures on the left. The background is a deep blue color.

# Your Detailed Report

A breakdown of  
microbial functions that  
contribute to your  
health.



# Gut-Brain Axis



The gut-brain axis is the communication network linking the gut and brain through nerves, hormones, and microbial signals. It plays a key role in regulating digestion, mood, and overall health.

These metabolites play a key role in regulating the Gut-Brain Axis.

# Gut-Brain Axis

## Key Metabolites:

- GABA
- Serotonin
- Tryptophan
- Glutamate



There may be an **imbalance** in your gut bacteria or weak communication between your gut and brain, which could contribute to issues like poor stress response, mood swings, or digestive discomfort.

## ⚡ Stress Management



**Your Result: POOR**

### GABA

- GABA is a neurotransmitter that helps the brain and body communicate, playing a key role in calming the nervous system, influencing mood, sleep, and stress levels.<sup>11</sup>

- Abundance of bacterial groups associated with GABA production is low, resulting in a **poor** score.
- Reduce GABA levels can **increase anxiety, impair sleep regulation, and elevate stress.**

# Gut-Brain Axis

## 📍 Mood Regulation



Your Result: **GOOD**

### Serotonin

- Serotonin regulates mood, sleep, appetite, and digestion, promoting happiness, calm, focus, better sleep, and stress management.<sup>12</sup>

- Abundance of bacterial groups associated with serotonin production is moderate, resulting in a **good** score.
- Moderate serotonin levels **support gut function, mood regulation, and emotional stability** through neural signaling.

## 🌐 Cell Communication



Your Result: **POOR**

### Tryptophan

- Tryptophan is an essential amino acid that your body uses to produce serotonin, a neurotransmitter involved in regulating mood, sleep, and overall well-being.<sup>13</sup>

- Abundance of bacterial groups associated with tryptophan production is low, resulting in a **poor** score.
- Reduced tryptophan levels can **impair serotonin synthesis, disrupting mood regulation and emotional well-being.**

## 🧠 Brain Signalling



Your Result: **POOR**

### Glutamate

- Glutamate is a key neurotransmitter, playing a central role in facilitating learning, memory formation, and communication between nerve cells (neurons).<sup>14</sup>

- Abundance of bacterial groups associated with glutamate production is low, resulting in a **poor** score.
- Reduced glutamate levels can **impair gut-brain communication, limiting cognitive processes and memory.**



# Immunity & Metabolism

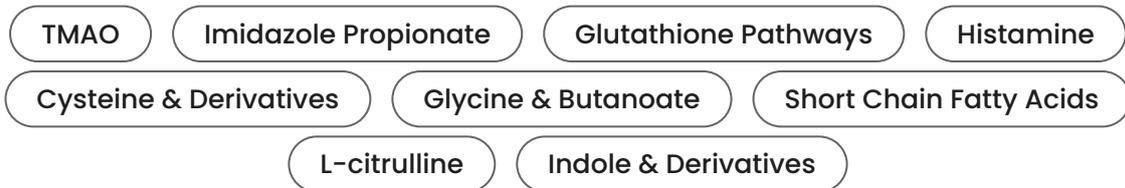


Immunity, metabolism, and gut health are closely connected through the gut microbiome. The gut-immune axis helps regulate immune responses, while the gut also influences metabolism by producing short-chain fatty acids (SCFAs) that support energy balance, insulin sensitivity, and fat storage.

These metabolites are essential for regulating Immunity and Metabolism.

# Immunity & Metabolism

## Key Metabolites:



There may be an imbalance in your gut bacteria, which could contribute to issues pertaining to immune, energy and metabolic functions.

## Heart Health



**Your Result: GOOD**

### TMAO

• TMAO (trimethylamine N-oxide) is produced by gut bacteria from red meat, eggs, and dairy, affecting cholesterol metabolism and increasing the risk of atherosclerosis and cardiovascular disease.<sup>15</sup>

- Abundance of bacterial groups associated with TMAO production processes is moderate, resulting in a **good score**.
- Moderate TMAO production suggests **moderate cardiovascular risk**, as these metabolites **contribute to atherosclerosis**.

# Immunity & Metabolism

## Glucose Regulation



**Your Result: GOOD**

### Imidazole Propionate

• Imidazole propionate, derived from histidine in protein-rich foods, can disrupt the gut microbiome, increase inflammation, and contribute to metabolic issues.<sup>16</sup>

- Abundance of bacterial groups with imidazole propionate production is moderate, resulting in a **good** score.
- Suboptimal imidazole propionate **suggests dysregulated glucose metabolism** and **impaired metabolic regulation**.

## Oxidative Stress Management



**Your Result: GOOD**

### Glutathione Pathways

• Glutathione neutralizes free radicals, reducing oxidative stress, inflammation, supports the barrier, and promotes beneficial bacteria, linking antioxidant defense to gut health.<sup>17</sup>

- Abundance of bacterial groups associated with glutathione pathways is moderate, resulting in a **good** score.
- Moderate glutathione metabolism **neutralizes reactive oxygen species, reducing oxidative stress** and **cellular damage**.

## Allergy



**Your Result: GOOD**

### Histamine

• Histamine is a chemical involved in immune responses, especially during allergic reactions, causing symptoms like itching and swelling. It also regulates stomach acid and the sleep-wake cycle.<sup>18</sup>

- Abundance of bacterial groups associated with production of histamine is moderate, resulting in a good score.
- Moderate histamine levels indicate **a balanced immune response, proper digestion,** and **regulation of sleep** and **allergic reactions**.

# Immunity & Metabolism

## Inflammation Management



**Your Result: POOR**

### Cysteine & Derivatives

• Cysteine supports protein and glutathione production, aiding immunity, cell protection and maintains microbiome balance. Its derivatives, NAC and cystine, promote lung, liver, and skin health.<sup>19</sup>

- Abundance of bacterial groups responsible for cysteine production is low, resulting in a **poor** score.
- Insufficient cysteine production by the gut microbiome **impair inflammation regulation, collagen synthesis, and tissue integrity.**

## Anti-Inflammation



**Your Result: POOR**

### Glycine & Butanoate

• Glycine, an amino acid involved in protein synthesis, supports the gut barrier by aiding in tissue repair and reducing oxidative stress, which helps maintain a stable gut environment. Butyrate, a short-chain fatty acid produced by gut bacteria during fiber fermentation, serves as a primary energy source for intestinal cells, strengthens the gut lining, and reduces inflammation.<sup>20</sup>

- Abundance of bacterial groups associated with glycine and butanoate metabolism is low, resulting in a **poor** score.
- **Reduced production of anti-inflammatory compounds** in the gut and **impaired inflammation regulation** indicates **an increased risk of gut inflammation.**

# Immunity & Metabolism

## Intestinal Health



**Your Result: POOR**

### Short Chain Fatty Acids

• Short-chain fatty acids (SCFAs) are produced by gut bacteria during fiber fermentation. They fuel intestinal cells, strengthen the gut lining, reduce inflammation, and support beneficial bacteria.<sup>21</sup>

- Abundance of bacterial groups associated with production of SCFAs is low, resulting in a **poor** score.
- **Reduced short-chain fatty acids** indicate **potential dietary fiber deficiency**, which may **compromise gut barrier integrity** and **impair gastrointestinal health**.

## Intestinal Permeability



**Your Result: POOR**

### L-citrulline

• L-citrulline is an amino acid that supports gut health by protecting the intestinal lining and promoting nutrient absorption.<sup>22</sup>

- Abundance of bacterial groups associated with L-citrulline metabolism is low, resulting in a **poor** score.
- **Low citrulline levels impair the intestinal barrier, increasing permeability** and **allowing harmful substances to enter the bloodstream, causing systemic inflammation** and **exacerbating digestive disorders..**

## Gut Lining Protection



**Your Result: GOOD**

### Indole & Derivatives

• Indole, produced from tryptophan and found in foods like broccoli, supports gut health by strengthening the intestinal lining, promoting beneficial bacteria, and reducing inflammation.<sup>23</sup>

- Abundance of bacterial groups responsible for indole production is moderate, resulting in a **good** score.
- Adequate indole production **supports intestinal barrier integrity** and **suppresses bacterial virulence, promoting gut health**.



# Digestion

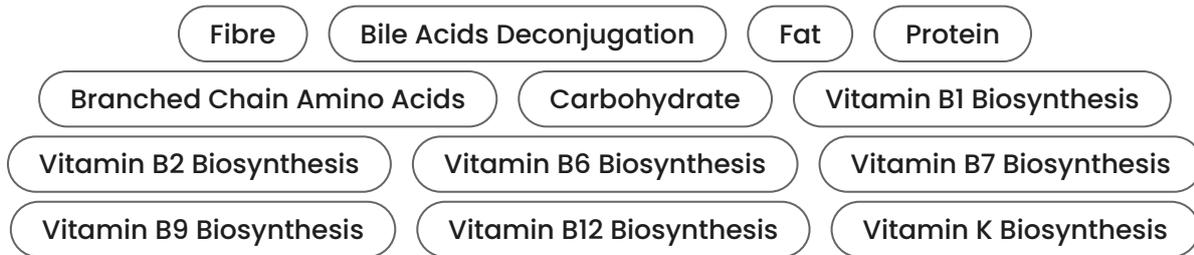


Digestion and gut health are interconnected, with the microbiome supporting nutrient breakdown, absorption, and gut lining integrity. A balanced microbiome is essential for efficient digestion, metabolic health, and overall gut function.

These metabolites support and regulate healthy digestion.

# Digestion

## Key Metabolites:



There may be an imbalance in your gut bacteria, which may be inefficiently digesting and absorbing nutrients.

### Fibre Digestion



**Your Result: POOR**

#### Fibre

• The body relies on gut bacteria to digest fiber from foods like fruits, vegetables, and whole grains. In the large intestine, bacteria ferment fiber into short-chain fatty acids (SCFAs), which strengthen the gut lining, reduce inflammation, and fuel gut cells. Fiber also supports beneficial bacteria, promotes regular digestion, and maintains a healthy gut microbiome.<sup>24</sup>

- Abundance of bacterial groups involved in fibre fermentation is low, resulting in a **poor** score.
- **Reduced fiber fermentation** in the gut microbiome **lowers SCFA production, compromising intestinal barrier integrity** and **gut health**.

# Digestion

## Fat Emulsification



Your Result: **GREAT**

### Bile Acids Deconjugation

• Bile acid deconjugation occurs in the gut when specific bacteria break down bile acids produced by the liver for fat digestion. This process shapes the gut microbiome by promoting beneficial bacteria, maintaining microbial balance, and reducing inflammation, highlighting its role in supporting digestive and microbiome health.<sup>25</sup>

- Abundance of bacterial groups responsible for bile acid deconjugation is high, resulting in a **great** score.
- **Optimal bile acid deconjugation enhances lipid emulsification, facilitating efficient absorption and metabolism of fat-soluble vitamins and essential nutrients.**

## Fat Digestion



Your Result: **GOOD**

### Fat

• Fat digestion breaks down fats from foods like oils, nuts, and dairy into fatty acids for energy, hormones, and cell health. Healthy fats, like omega-3s, support beneficial gut bacteria and reduce inflammation, promoting a balanced microbiome and overall gut health.<sup>26</sup>

- Abundance of bacterial groups associated with fat digestion is moderate, resulting in a **good** score.
- **Suboptimal fat digestion and metabolism hinder energy extraction, lipid oxidation, and metabolic homeostasis.**

# Digestion

## Protein Digestion



**Your Result: POOR**

### Protein

• Protein digestion breaks down proteins into amino acids for muscle building, tissue repair, and essential functions. In the gut, undigested protein is fermented by bacteria, producing beneficial compounds like SCFAs and indoles that strengthen the gut lining, reduce inflammation, and support a healthy microbiome.<sup>27</sup>

- Abundance of bacterial groups associated with protein digestion is low, resulting in a **poor** score.
- **Inefficient protein digestion and amino acid absorption** can **impair muscle repair, recovery,** and **growth.**

## Muscle Growth & Repair



**Your Result: POOR**

### Branched Chain Amino Acids

• Branched-chain amino acids (BCAAs)—leucine, isoleucine, and valine—support gut health by maintaining the intestinal lining, reducing oxidative stress, and fueling intestinal cells. They also promote beneficial bacteria, linking protein metabolism to a healthy microbiome.<sup>28</sup>

- Abundance of bacterial groups associated with the digestion and utilisation of BCAAs low, resulting in a **poor** score.
- The gut microbiome's **reduced ability to metabolise branched-chain amino acids** may **impair protein synthesis, muscle repair,** and **intestinal barrier health.**

# Digestion

## Carbohydrate Digestion



Your Result: **POOR**

### Carbohydrate

- Carbohydrate digestion breaks down carbs into sugars for energy, with undigested fiber reaching the large intestine. Gut bacteria ferment this fiber, producing short-chain fatty acids (SCFAs) that strengthen the gut barrier, support beneficial bacteria, and promote a healthy microbiome.<sup>29</sup>
- The body uses carbohydrate to derive energy and when undigested by the gut, causes gas and bloating.

- Abundance of bacterial groups associated with carbohydrate digestion is low, resulting in a **poor** score.
- **Inefficient carbohydrate metabolism** leads to **suboptimal energy extraction, impairing energy utilisation** and **increasing the risk of nutrient deficiencies**.

## Vitamin B1 Biosynthesis



Your Result: **POOR**

### Vitamin B1 Biosynthesis

- Vitamin B1 (thiamine) is essential for converting food (carbohydrates) into energy and supporting the nervous system, digestion, and gut health.<sup>30</sup>
- Thiamine helps maintain a strong gut lining and balanced bacteria.

- Abundance of bacterial groups involved in Vitamin B1 production is low, resulting in a **poor** score.
- **Insufficient vitamin B1 production** by the gut microbiome may **impair carbohydrate metabolism, energy production, and metabolic health**.

# Digestion

## Vitamin B2 Biosynthesis



Your Result: **GOOD**

### Vitamin B2 Biosynthesis

- Vitamin B2 (riboflavin) is vital for energy production, metabolism, and overall health, and it also plays an important role in supporting gut health by maintaining the gut lining, promoting the growth and function of beneficial bacteria, and reducing inflammation.<sup>30</sup>

- Abundance of riboflavin-producing bacterial groups is moderate, resulting in a **good** score.
- **Suboptimal vitamin B2 production** by the gut microbiome may **disrupt microbial balance, gut function,** and **efficient energy production.**

## Vitamin B6 Biosynthesis



Your Result: **POOR**

### Vitamin B6 Biosynthesis

- Vitamin B6 (pyridoxine) plays a crucial role in protein metabolism, energy production, and brain function, while also influencing gut health by reducing inflammation, boosting immunity, and promoting the growth of beneficial bacteria.<sup>30</sup>

- Abundance of bacterial groups associated with vitamin B6 production is low, resulting in a **poor** score.
- **Decreased vitamin B6 production** by the gut microbiome may **disrupt amino acid metabolism, red blood cell production, neurotransmitter synthesis,** and **gut function.**

# Digestion

## **B** Vitamin B7 Biosynthesis



**Your Result: POOR**

### Vitamin B7 Biosynthesis

• Vitamin B7 (biotin) plays a key role in converting food into energy and supports healthy skin, hair, nails, and the nervous system while maintaining a healthy gut lining and supports a balanced microbiome by promoting beneficial bacteria.<sup>30</sup>

- Abundance of bacterial groups associated with vitamin B7 production is low, resulting in a **poor** score.
- **Reduced vitamin B7 production** by the gut microbiome may **impair carbohydrate and fat metabolism, affect skin, nail, and hair health, and disrupt liver and nervous system function.**

## **B** Vitamin B9 Biosynthesis



**Your Result: POOR**

### Vitamin B9 Biosynthesis

• Vitamin B9 (folate) is essential for DNA synthesis, red blood cell production, and cell growth while supporting gut health by maintaining the gut lining, promoting beneficial bacteria, and reducing inflammation.<sup>30</sup>

- Abundance of bacterial groups associated with vitamin B9 production is low, resulting in a **poor** score.
- **Low vitamin B9 production** by the gut microbiome may **impair red and white blood cell formation, cellular processes, and DNA synthesis, affecting overall health.**

# Digestion

## Vitamin B12 Biosynthesis



Your Result: **POOR**

### Vitamin B12 Biosynthesis

- Vitamin B12 (cobalamin) is essential for energy production, red blood cell formation, DNA synthesis, and nervous system health while maintaining the gut lining and supports the growth and function of beneficial gut bacteria.<sup>30</sup>

- Abundance of bacterial groups associated with vitamin B12 production is low, resulting in a **poor** score.
- **Reduced vitamin B12 production** by the gut microbiome may **impair neurological function, hinder red blood cell production,** and **cause fatigue** and **gastrointestinal disturbances.**

## Vitamin K Biosynthesis



Your Result: **GOOD**

### Vitamin K Biosynthesis

- Vitamin K supports blood clotting, bone health, and gut health by maintaining the integrity of the gut lining and promoting the growth of beneficial bacteria.<sup>31</sup>

- Abundance of bacterial groups associated with vitamin K synthesis is moderate, resulting in a **good** score.
- **Suboptimal vitamin K production** by the gut microbiome may **affect bone health regulation** and **disrupt vitamin K-dependent processes,** including **blood clotting, calcium metabolism,** and **cardiovascular health.**

# Your Health Trajectory

An analysis on how your gut  
microbiome correlates with key  
health outcomes



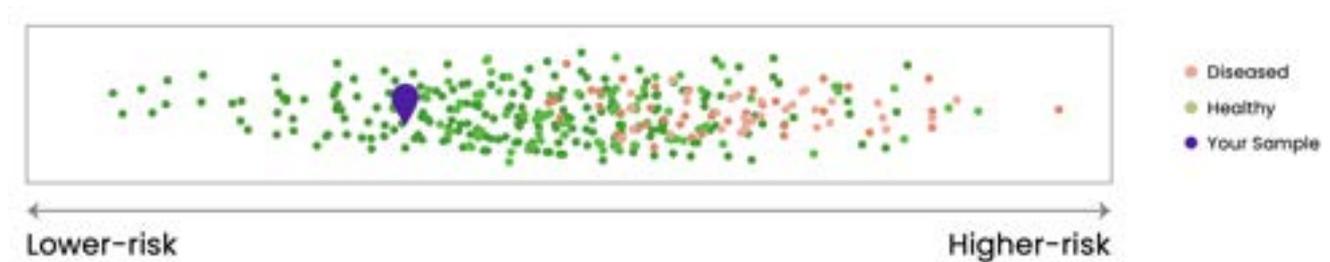
## + How to Interpret Your Results

The graphs in your report provide insights into how your gut microbiome composition may impact your health trajectory. Here's how to understand them:

### Graph Position:

If your result (  ) is closer to the left, your microbiome profile more closely aligns with healthier profiles.

If your result is further to the right, it suggests a microbiome composition more commonly associated with higher-risk profiles.



### Understanding Anomalies:

It's normal for individuals with overall good health to occasionally fall into higher-risk ranges. These results are not diagnostic but instead highlight possible trends for further discussion with your healthcare provider.

### Key Takeaway:

These graphs reveal correlations between your gut microbiome and various health risks. Use this information as a guide to better understand your health and discuss proactive steps with your healthcare provider.

## Obesity & Gut Health



- **Obesity:** Linked to excess body fat, which can impact health.
- **Gut Imbalance (Dysbiosis):** An unhealthy gut microbiome may increase obesity risk.
- **Low Bacterial Diversity:** Reduces metabolic efficiency, making weight management harder.

## Non-Alcoholic Fatty Liver Disease (NAFLD)



- **NAFLD (Non-Alcoholic Fatty Liver Disease):** Caused by fat build-up in the liver.
- **Liver Inflammation:** Fat can trigger inflammation and damage liver cells.
- **NASH (Non-Alcoholic Steatohepatitis):** A severe form of NAFLD that can lead to liver scarring and cirrhosis.

## Inflammatory Bowel Disease (IBD)



- **IBD (Inflammatory Bowel Disease):** Refers to chronic inflammation of the digestive tract.
- **Ulcerative Colitis:** Causes persistent inflammation and ulcers in the colon and rectum lining.
- **Crohn's Disease:** Involves inflammation of the digestive tract lining, often extending into deeper tissues.

## Colorectal Cancer (CRC)



- **Colorectal Cancer (CRC):** Includes cancers of the bowel, colon, and rectum.
- **Genetic Risk:** 75–95% of cases have little to no underlying genetic risk.
- **Risk Factors:** Age, diet, obesity, smoking, and red meat consumption.

## Type 2 Diabetes Mellitus (T2DM)



- **T2DM (Type 2 Diabetes Mellitus):** Defined by high blood glucose, insulin resistance, and insufficient insulin production.
- **Prevalence:** Accounts for nearly 90% of diabetes cases worldwide.
- **Causes:** Linked to a combination of lifestyle and genetic factors.

# Our Probiotics Details



## + Our Probiotics Details

Formulation 2 – Complete Health		
 <p><b>Delayed-release capsules:</b> Ensures targeted delivery to the intestine</p> <p>1 month supply of 30 <b>veggie capsules</b></p>	<p>Our <b>Formulation 2</b> helps to improve your digestive function and physical well-being.</p>	
	<p>★ <b>Key benefits:</b></p> <ul style="list-style-type: none"> <li>• Supports heart health and bile acid metabolism.</li> <li>• Enhances mood, sleep and stress management.</li> <li>• Reduces inflammation and improves physical performance.</li> </ul>	<p><b>21</b> billion CFU</p>
	<p>🦠 <b>Probiotics Strains:</b></p> <ul style="list-style-type: none"> <li>• <b>L. plantarum:</b> Reduces inflammation, enhances glucose metabolism, supports fat oxidation, and promotes better sleep quality.<sup>32</sup></li> <li>• <b>B. longum:</b> Improves gut microbiota diversity and supports liver and kidney health.<sup>33, 34</sup></li> <li>• <b>B. breve:</b> Strengthens intestinal integrity and reduces neuroinflammation.<sup>35</sup></li> <li>• <b>L. Rhamnosus:</b> Enhances physical performance with improved locomotor activities and enhances muscle strength.<sup>36</sup></li> </ul>	
	<p>🌿 <b>Prebiotics Strains:</b></p> <ul style="list-style-type: none"> <li>• <b>Fructooligosaccharides (FOS)   30mg:</b> Promotes growth of good gut bacteria and increases mineral absorption.<sup>37</sup></li> <li>• <b>Citrus Aurantium L. (Orange Peel Extract)   60mg:</b> Promotes Short-Chain Fatty Acid (SCFA) production, enhancing digestive health.<sup>38</sup></li> <li>• <b>Guar Gum   20mg:</b> Regulates immune response and reduces inflammation.<sup>39</sup></li> </ul>	
	<p>🧬 <b>Postbiotics Strains:</b></p> <ul style="list-style-type: none"> <li>• <b>S. salivarius ssp. thermophilus:</b> Regulates immune response and reduces inflammation.<sup>40</sup></li> </ul>	

### Enhanced Gut Health through Synbiotics

**AMILI Probiotics** contain **synbiotic** blends of probiotics (beneficial bacteria) and prebiotics (non-digestible fibers) to enhance gut health.



**Synergistic Effects**



**Strengthened Gut Barrier**



**Short-Chain Fatty Acid (SCFA) Production**



**Balanced Microbiome**

- **Probiotics** plays a role in improving digestion, nutrient absorption, metabolism and immunity.
- **Prebiotics** act as food for probiotics, boosting their survival and function.
- As synbiotics, they **reinforce the gut barrier**, combat inflammation, and protect against harmful pathogens.
- Stimulates **short-chain fatty acid production**, supporting colon function and reducing metabolic disease risks
- Restores **gut balance**, promoting optimal digestive health and immunity.

# Your Dietary Details



## Your Dietary Details

### Whole Grains



**Barley**

Barley is high in soluble fiber that helps lower cholesterol and improve gut health. It also supports immune function through its effect on the microbiome.<sup>41</sup>



**Black Rice**

High in fiber and anthocyanins, black rice supports digestion, regularity, and helps reduce inflammation and oxidative stress.<sup>42</sup>



**Brown Rice**

Brown rice promotes mental focus, boosts your body's defenses, and helps keep digestion smooth with its natural fiber and nutrients.<sup>43</sup>

### Fruits & Vegetables



**Açaí Bowl**

Açaí berries are rich in antioxidants that support blood vessel function, heart rhythm, and overall cardiovascular health.<sup>44</sup>



**Apple**

Apples' fiber supports gut health and immunity by feeding good bacteria, aiding metabolism, and promoting heart and mental wellbeing.<sup>45</sup>



**Artichoke**

Artichokes promote digestion and reduce bloating. Their fiber supports regular bowel movements and gut health.<sup>46</sup>

### Plant-based Proteins



**Alfalfa**

Alfalfa contains plant compounds that support immunity, aid digestion, and boost metabolism by improving gut health and reducing inflammation.<sup>47</sup>



**Almond**

Almonds support heart, metabolic, and mental health. Their fiber aids gut health and immunity, promoting a balanced microbiome linked to improved mood and wellbeing.<sup>48</sup>



**Beancurd Skin**

Beancurd skin is high in protein and contains isoflavones, which help regulate digestive function and may reduce inflammation.<sup>49</sup>

▲ Most Associated with:

Gut Brain Axis

Immunity & Metabolism

Digestion

## Your Dietary Details

### Herbs & Spices



**Basil**

Basil's antioxidants, flavonoids, and vitamin K help ease inflammation, support the gut-brain axis, and may reduce stress and mental fatigue.<sup>50</sup>



**Bay Leaves**

Bay leaves aid digestion by stimulating enzymes, reducing gas, and offering anti-inflammatory and antimicrobial support for a healthy gut.<sup>51</sup>



**Black Tea**

Theaflavins in black tea reduce inflammation and may support focus, memory, and brain health by influencing the gut-brain axis.<sup>52</sup>

### Probiotic & Fermented Foods



**Achar**

Achar provides probiotics for gut health. Its spices help stimulate digestion and support a healthy gut microbiome.<sup>53</sup>



**Apple Cider Vinegar**

Apple cider vinegar may help regulate blood sugar and digestion. Its acetic acid supports gut health and weight control.<sup>54</sup>



**Cheddar**

Cheddar cheese provides protein and calcium that support immune health and may positively influence gut microbiome composition and overall gut health.<sup>55</sup>

### Animal-based Proteins



**Anchovies**

Anchovies are rich in omega-3 and minerals, making them a brain-boosting superfood. Diets with oily fish like anchovies may support mood and mental wellbeing.<sup>56</sup>



**Barramundi**

Barramundi is rich in omega-3 fatty acids, supporting heart health and reducing inflammation. It's also a lean source of protein that promotes muscle health and metabolic function.<sup>57</sup>



**Clam**

Clams are packed with iron and zinc for immunity, plus high-quality protein and omega-3s that support heart and brain health.<sup>58</sup>

▲ Most Associated with:

Gut Brain Axis

Immunity & Metabolism

Digestion

Your recommendations are personalised to your survey-declared health conditions – fewer suggestions may appear due to dietary or health-related filters.

## Your Gut-Friendly Lifestyle Guide

Did you know that, like all healthy ecosystems, a **diverse community of microbes** is a hallmark of a healthy gut? Beyond food, habits like movement, sleep, and stress management all play a role in supporting it.

Scan the QR to explore in-depth advice, gut-friendly meal ideas, and more lifestyle habits that support your microbiome!



### Diet

Your gut thrives on a variety of fibre-rich plant foods – not just vegetables, but also legumes, whole grains, nuts, and seeds. Aim for **30+ different plant foods a week** to boost microbial diversity. Focus on **whole foods, less oil, and less sugar**, and try to **avoid processed foods**. These habits support the growth of beneficial bacteria that produce SCFAs, which improve digestion and help regulate inflammation and metabolism.<sup>59</sup>



### Exercise

Just **30 minutes** of movement a day – whether walking, stretching, or cycling – can increase beneficial bacteria and support SCFA production. Regular activity reduces inflammation and improves digestion, contributing to better **Immunity & Metabolism** and **Digestion** scores.<sup>60</sup>



### Stress

Chronic stress disrupts the gut-brain connection, reducing beneficial bacteria and increasing gut permeability. Even **10 minutes** of breathing exercises or mindfulness can help lower cortisol and restore microbial balance – supporting both **Digestion** and your **Gut-Brain Axis**.<sup>61</sup>



### Sleep

Less than 6 hours of sleep has been linked to reduced microbial diversity and increased inflammation. Aim for **7–9 hours** of quality sleep to allow your microbiome to recover and support both your **Gut-Brain Axis** and **Immunity & Metabolism**.<sup>62</sup>



# Appendix



## + References

- 1 Min, M., Egli, C., Sivamani, R. K. (2024). The gut and skin microbiome and its association with aging clocks. *International Journal of Molecular Sciences*, 25, 7471.
- 2 Manor, O., Dai, C. L., Kornilov, S. A., Smith, B., Price, N. D., Lovejoy, J. C., Gibbons, S.M., & Magis, A. T. (2020). Health and disease markers correlate with gut microbiome composition across thousands of people. *Nature Communications*, 11(1). <https://doi.org/10.1038/s41467-020-18871-1>
- 3 Shin, N., Whon, T. W., & Bae, J. (2015). Proteobacteria: microbial signature of dysbiosis in gut microbiota. *Trends in Biotechnology*, 33(9), 496–503. <https://doi.org/10.1016/j.tibtech.2015.06.011>
- 4 Odamaki, T., Kato, K., Sugahara, H., Hashikura, N., Takahashi, S., Xiao, J., Abe, Fumiaki, & Osawa, R. (2016). Age-related changes in gut microbiota composition from newborn to centenarian: a cross-sectional study. *BMC Microbiology*, 16(1). <https://doi.org/10.1186/s12866-016-0708-5>
- 5 Noor, J., Chaudhry, A., Batool, S., Noor, R., & Fatima, G. (2023). Exploring the Impact of the Gut Microbiome on Obesity and Weight Loss: A Review Article. *Cureus*, 15(6), e40948. <https://doi.org/10.7759/cureus.40948>
- 6 Rinninella, E., Raoul, P., Cintoni, M., Franceschi, F., Miggiano, G., Gasbarrini, A., & Mele, M. (2019). What is the Healthy Gut Microbiota Composition? A Changing Ecosystem across Age, Environment, Diet, and Diseases. *Microorganisms*, 7(1), 14. doi:10.3390/microorganisms7010014
- 7 Bashir, Arif, et al. *Fusobacterium Nucleatum*, Inflammation, and Immunity: The Fire within Human Gut. *Tumor Biology*, 37(3), Mar. 2016, pp. 2805–10. DOI.org (Crossref), <https://doi.org/10.1007/s13277-015-4724-0>
- 8 Magne, F., Gotteland, M., Gauthier, L., Zazueta, A., Poeso, S., Navarrete, P., & Balamurugan, R. (2020). The Firmicutes/ Bacteroidetes Ratio: A Relevant Marker of Gut Dysbiosis in Obese Patients?. *Nutrients*, 12(5), 1474.
- 9 Kho, Z. Y., & Lal, S. K. (2018). The human gut microbiome – a potential controller of wellness and disease. *Frontiers in Microbiology*, 9. <https://doi.org/10.3389/fmicb.2018.01835>
- 10 [1] Aktas, B., Aslim, B., & Ozdemir, D. A. (2024). A neurotherapeutic approach with *Lactocaseibacillus rhamnosus* E9 on gut microbiota and intestinal barrier in MPTP-induced mouse model of Parkinson's disease. *Scientific Reports*, 14(1). <https://doi.org/10.1038/s41598-024-65061-w>
- 11 Duranti, S., Ruiz, L., Lugli, G. A., Tames, H., Milani, C., Mancabelli, L., Mancino, W., Longhi, G., Carnevali, L., Sgoifo, A., Margolles, A., Ventura, M., Ruas-Madiedo, P., & Turrone, F. (2020). *Bifidobacterium adolescentis* as a key member of the human gut microbiota in the production of GABA. *Scientific Reports*, 10(1). <https://doi.org/10.1038/s41598-020-70986-z>
- 12 Stasi, C., Sadalla, S., & Milani, S. (2019). The relationship between the serotonin metabolism, Gut-Microbiota and the Gut-Brain axis. *Current Drug Metabolism*, 20(8), 646–655. <https://doi.org/10.2174/1389200220666190725115503>
- 13 Gao, K., Mu, C. L., Farzi, A., & Zhu, W. Y. (2020). Tryptophan Metabolism: A Link Between the Gut Microbiota and Brain. *Advances in nutrition (Bethesda, Md.)*, 11(3), 709–723. <https://doi.org/10.1093/advances/nmz127>
- 14 Chen, Y., Xu, J., & Chen, Y. (2021). Regulation of Neurotransmitters by the Gut Microbiota and Effects on Cognition in Neurological Disorders. *Nutrients*, 13(6), 2099. <https://doi.org/10.3390/nu13062099>
- 15 Liu, Y., & Dai, M. (2020). Trimethylamine N-Oxide Generated by the Gut Microbiota Is Associated with Vascular Inflammation: New Insights into Atherosclerosis. *Mediators of inflammation*, 2020, 4634172. <https://doi.org/10.1155/2020/4634172>
- 16 Molinaro, A., Lassen, P. B., Henricsson, M., Wu, H., Adriouch, S., Belda, E., Chakaroun, R., Nielsen, T., Bergh, P., Rouault, C., André, S., Marquet, F., Andreelli, F., Salem, J., Assmann, K., Bastard, J., Forslund, S., Chatelier, E. L., Falony, G., Pons, N., Pifti, E., Quinquis, B., Roume, H., Vieira-Silva, S., The MetaCardis Consortium, Køber, L., Vestergaard, H., Hansen, T., Zucker, J., Bork, P., Ehrlich, S.D., Stumvoll, M., Pedersen, O., Aron-Wisniewsky, J., & Clément, K. (2020). Imidazole propionate is increased in diabetes and associated with dietary patterns and altered microbial ecology. *Nature Communications*, 11(1). <https://doi.org/10.1038/s41467-020-19589-w>
- 17 Shandilya, S., Kumar, S., Jha, N. K., Kesari, K. K., & Ruokolainen, J. (2021). Interplay of gut microbiota and oxidative stress: Perspective on neurodegeneration and neuroprotection. *Journal of Advanced Research*, 38, 223–244. <https://doi.org/10.1016/j.jare.2021.09.005>
- 18 Sánchez-Pérez, S., Comas-Basté, O., Duelo, A., Veciana-Nogués, M. T., Berlanga, M., Latorre-Moratalla, M. L., & Vidal-Carou, M. C. (2022). Intestinal Dysbiosis in Patients with Histamine Intolerance. *Nutrients*, 14(9), 1774. <https://doi.org/10.3390/nu14091774>
- 19 Dopkins, N., Nagarkatti, P. S., & Nagarkatti, M. (2018). The role of gut microbiome and associated metabolome in the regulation of neuroinflammation in multiple sclerosis and its implications in attenuating chronic inflammation in other inflammatory and autoimmune disorders. *Immunology*, 154(2), 178–185. <https://doi.org/10.1111/imm.12903>
- 20 Sugihara, K., Morhardt, T. L., & Kamada, N. (2019). The Role of Dietary Nutrients in Inflammatory Bowel Disease. *Frontiers in immunology*, 9, 3183. <https://doi.org/10.3389/fimmu.2018.03183>

## + References

- 21 Van De Wouw, M., Boehme, M., Lyte, J. M., Wiley, N., Strain, C., O'Sullivan, O., Clarke, G., Stanton, C., Dinan, T. G., & Cryan, J. F. (2018). Short-chain fatty acids: microbial metabolites that alleviate stress-induced brain-gut axis alterations. *The Journal of Physiology*, 596(20), 4923–4944. <https://doi.org/10.1113/jp276431>
- 22 Uyanga, V. A., Amevor, F. K., Liu, M., Cui, Z., Zhao, X., & Lin, H. (2021). Potential Implications of Citrulline and Quercetin on Gut Functioning of Monogastric Animals and Humans: A Comprehensive Review. *Nutrients*, 13(11), 3782. <https://doi.org/10.3390/nu13113782>
- 23 Ye, X., Li, H., Anjum, K., Zhong, X., Miao, S., Zheng, G., Liu, W., & Li, L. (2022). Dual Role of Indoles Derived From Intestinal Microbiota on Human Health. *Frontiers in immunology*, 13, 903526. <https://doi.org/10.3389/fimmu.2022.903526>
- 24 Cronin, P., Joyce, S. A., O'Toole, P. W., & O'Connor, E. M. (2021). Dietary Fibre Modulates the Gut Microbiota. *Nutrients*, 13(5), 1655. <https://doi.org/10.3390/nu13051655>
- 25 Guzior, D. V., & Quinn, R. A. (2021). Review: microbial transformations of human bile acids. *Microbiome*, 9(1). <https://doi.org/10.1186/s40168-021-01101-1>
- 26 Schoeler, M., & Caesar, R. (2019). Dietary lipids, gut microbiota and lipid metabolism. *Reviews in endocrine & metabolic disorders*, 20(4), 461–472. <https://doi.org/10.1007/s11154-019-09512-0>
- 27 Zhao, J., Zhang, X., Liu, H., Brown, M. A., & Qiao, S. (2019). Dietary Protein and Gut Microbiota Composition and Function. *Current protein & peptide science*, 20(2), 145–154. <https://doi.org/10.2174/1389203719666180514145437>
- 28 Gojda, J., & Cahova, M. (2021). Gut Microbiota as the Link between Elevated BCAA Serum Levels and Insulin Resistance. *Biomolecules*, 11(10), 1414. <https://doi.org/10.3390/biom11101414>
- 29 Coker, J. K., Moyne, O., Rodionov, D. A., & Zengler, K. (2021). Carbohydrates great and small, from dietary fiber to sialic acids: How glycans influence the gut microbiome and affect human health. *Gut microbes*, 13(1), 1–18. <https://doi.org/10.1080/19490976.2020.1869502>
- 30 Hossain, K. S., Amarasena, S., & Mayengbam, S. (2022). B Vitamins and Their Roles in Gut Health. *Microorganisms*, 10(6), 1168. <https://doi.org/10.3390/microorganisms10061168>
- 31 Ellis, J. L., Karl, J. P., Oliverio, A. M., Fu, X., Soares, J. W., Wolfe, B. E., Hernandez, C. J., Mason, J. B., & Booth, S. L. (2021). Dietary vitamin K is remodeled by gut microbiota and influences community composition. *Gut microbes*, 15(1), 1–16. <https://doi.org/10.1080/19490976.2021.1887721>
- 32 Cao, F., Ding, Q., Zhuge, H., Lai, S., Chang, K., Le, C., Yang, G., Valencak, T. G., Li, S., & Ren, D. (2023). *Lactobacillus plantarum* ZJUIDS14 alleviates non-alcoholic fatty liver disease in mice in association with modulation in the gut microbiota. *Frontiers in nutrition*, 9, 1071284. <https://doi.org/10.3389/fnut.2022.1071284>
- 33 Kou, R., Wang, J., Li, A., Wang, Y., Zhang, B., Liu, J., Sun, Y., & Wang, S. (2023). Ameliorating Effects of *Bifidobacterium longum* subsp. *infantis* FB3-14 against High-Fat-Diet-Induced Obesity and Gut Microbiota Disorder. *Nutrients*, 15(19), 4104. <https://doi.org/10.3390/nu15194104>
- 34 Chu, C., Jiang, J., Yu, L., Li, Y., Zhang, S., Zhou, W., Wang, Q., Zhao, J., Zhai, Q., Tian, F., & Chen, W. (2023). *Bifidobacterium longum* CCFM1077 Attenuates Hyperlipidemia by Modulating the Gut Microbiota Composition and Fecal Metabolites: A Randomized, Double-Blind, Placebo-Controlled Clinical Trial. *Engineering*, 28, 193–205. <https://doi.org/10.1016/j.eng.2023.04.010>
- 35 Zhu, G., Guo, M., Zhao, J., Zhang, H., Wang, G., & Chen, W. (2023). Environmental enrichment in combination with *Bifidobacterium breve* HNX26M4 intervention amplifies neuroprotective benefits in a mouse model of Alzheimer's disease by modulating glutamine metabolism of the gut microbiome. *Food Science and Human Wellness*, 13(2), 982–992.
- 36 Aktas, B., Aslim, B., & Ozdemir, D. A. (2024). A neurotherapeutic approach with *Lactobacillus rhamnosus* E9 on gut microbiota and intestinal barrier in MPTP-induced mouse model of Parkinson's disease. *Scientific Reports*, 14(1). <https://doi.org/10.1038/s41598-024-65061-w>
- 37 Sabater-Molina, M., Larqué, E., Torrella, F., & Zamora, S. (2009). Dietary fructooligosaccharides and potential benefits on health. *Journal of Physiology and Biochemistry*, 65(3), 315–328. <https://doi.org/10.1007/BF03180584>
- 38 Kamalifard, M., Farshbaf-Khalili, A., Namadian, M., Ranjbar, Y., & Herizchi, S. (2017). Comparison of the effect of lavender and bitter orange on sleep quality in postmenopausal women: A triple-blind, randomized, controlled clinical trial. *Women & Health*, 58(8), 851–865. <https://doi.org/10.1080/03630242.2017.1353575>
- 39 Kato, T., Kamiya, S., Narasaki, S., Sumii, A., Tsutsumi, Y. M., Machida, K., . . . Sakae, H. (2023). Partially Hydrolyzed Guar Gum Intake Supports the Gut Microbiota and Attenuates Inflammation during Influenza H1N1 Virus Infection in Mice. *Nutrients*, 15(19), 4252. <https://doi.org/10.3390/nu15194252>
- 40 Han, F., Wu, G., Zhang, Y., Zheng, H., Han, S., Li, X., . . . Hu, D. (2020). *Streptococcus thermophilus* Attenuates Inflammation in Septic Mice Mediated by Gut Microbiota. *Frontiers in Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.598010>

## + References

- 41 Marshall, S., Petocz, P., Duve, E., Abbott, K., Cassettari, T., Blumfield, M., & Fayet-Moore, F. (2020b). Does replacing refined grains with whole grains improve cardiovascular risk factors? A systematic review and meta-analysis of randomised controlled trials with grade clinical recommendation. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.3529443>
- 42 L. Z. Zhang et al. (2016), 'Antioxidants in Black Rice and Their Role in Reducing Oxidative Stress,' \*Food Chemistry\*, 197, pp. 1225-1230.
- 43 Marshall, S., Petocz, P., Duve, E., Abbott, K., Cassettari, T., Blumfield, M., & Fayet-Moore, F. (2020b). Does replacing refined grains with whole grains improve cardiovascular risk factors? A systematic review and meta-analysis of randomised controlled trials with grade clinical recommendation. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.3529443>
- 44 Hemodynamic and electrocardiographic effects of açai berry in healthy volunteers: A randomized controlled trial Gale, Ashley M. et al. International Journal of Cardiology, Volume 174, Issue 2, 421 - 423
- 45 Aune, D., Giovannucci, E., Boffetta, P., Fadnes, L. T., Keum, N., Norat, T., Greenwood, D. C., Riboli, E., Vatten, L. J., & Tonstad, S. (2017). Fruit and vegetable intake and the risk of cardiovascular disease, total cancer and all-cause mortality—a systematic review and dose-response meta-analysis of prospective studies. International journal of epidemiology, 46(3), 1029–1056. <https://doi.org/10.1093/ije/dyw319>
- 46 Lazzini S, Polinelli W, Riva A, Morazzoni P, Bombardelli E. The effect of ginger (*Zingiber officinalis*) and artichoke (*Cynara cardunculus*) extract supplementation on gastric motility: a pilot randomized study in healthy volunteers. Eur Rev Med Pharmacol Sci. 2016;20(1):146–9. PMID: 26813467.
- 47 Bora KS, Sharma A. Phytochemical and pharmacological potential of *Medicago sativa*: a review. Pharm Biol. 2011 Feb;49(2):211–20. doi: 10.3109/13880209.2010.504732. Epub 2010 Oct 25. PMID: 20969516.
- 48 Trumbo, P. R., Ard, J., Bellisle, F., Drewnowski, A., Gilbert, J. A., Kleinman, R., Misra, A., Sievenpiper, J., Tahiri, M., Watson, K. E., & Hill, J. (2024). Perspective: Current Scientific Evidence and Research Strategies in the Role of Almonds in Cardiometabolic Health. Current Developments in Nutrition, 9(1), 104516. <https://doi.org/10.1016/j.cdnut.2024.104516>
- 49 J. S. Lee et al. (2016), 'Beancurd (Tofu) and its Role in Digestion and Inflammation Reduction,' \*Phytotherapy Research\*, 30(8), pp. 1632-1639.
- 50 M. R. Srivastava et al. (2017), 'Basil and Its Health Benefits for Metabolism and Immune Support,' \*Nutrients\*, 9(10), pp. 1234-1241.
- 51 K. P. Kumar et al. (2016), 'The Role of Bay Leaves in Supporting Immune Health and Digestion,' \*Phytotherapy Research\*, 30(7), pp. 1031-1038.
- 52 Yilmaz, Y. (2025) 'Health-promoting effects of black tea: A narrative review of clinical trials', International Journal of Food Science, 2025(1). doi:10.1155/ijfo/8560718.

## + References

- 53 R. J. Tan et al. (2016), 'Achar and Its Role in Gut Health and Digestion,' *\*Food & Function\**, 7(8), pp. 3517-3523.
- 54 J. C. Lee et al. (2017), 'Apple Cider Vinegar and Its Benefits for Blood Sugar Control and Gut Health,' *\*Food Research International\**, 101, pp. 1017-1024.
- 55 J. M. Laird et al. (2016), 'Cheddar Cheese: Protein, Calcium, and Immune Support,' *\*Journal of Dairy Science\**, 99(7), pp. 5495-5501. Lee, C., Lee, J., Eor, J. Y., Kwak, M. J., Huh, C. S., & Kim, Y. (2023). Effect of Consumption of Animal Products on the Gut Microbiome Composition and Gut Health. *Food science of animal resources*, 43(5), 723-750. <https://doi.org/10.5851/kosfa.2023.e44>
- 56 Parletta N, Zarnowiecki D, Cho J, Wilson A, Bogomolova S, Villani A, Itsiopoulos C, Niyonsenga T, Blunden S, Meyer B, Segal L, Baune BT, O'Dea K. A Mediterranean-style dietary intervention supplemented with fish oil improves diet quality and mental health in people with depression: A randomized controlled trial (HELFIMED). *Nutr Neurosci*. 2019 Jul;22(7):474-487. doi: 10.1080/1028415X.2017.1411320. Epub 2017 Dec 7. PMID: 29215971.
- 57 J. F. Reilly et al. (2017), 'Barramundi and Omega-3 Fatty Acids: Heart Health Benefits and Protein for Metabolism,' *\*Journal of Nutritional Science\**, 9(8), pp. 443-450.
- 58 J. T. Wang et al. (2017), 'Clams and Their Role in Supporting Immune Function and Heart Health,' *\*Journal of Nutritional Biochemistry\**, 48, pp. 32-40.
- 59 Fan, Y., & Pedersen, O. (2020). Gut microbiota in human metabolic health and disease. *Nature Reviews Microbiology*, 19(1), 55-71. <https://doi.org/10.1038/s41579-020-0433-9>
- 60 Clark, S. R., Scheiman, J., & Becker, A. B. (2022). The athlete gut microbiome and its relevance to health and performance. *Sports Medicine*, 50(3), 349-364. <https://doi.org/10.1007/s40279-022-01785-x> link.springer.commdpi.com
- 61 Cryan, J. F., & Dinan, T. G. (2012). Mind-altering microorganisms: the impact of the gut microbiota on brain and behaviour. *Nature Reviews Neuroscience*, 13(10), 701-712.
- 62 Foster JA, Rinaman L, Cryan JF. (2017). Stress & the gut-brain axis: Regulation by the microbiome. *Neurobiology of Stress*.

Note: This microbiome test is a non-diagnostic evaluation, and intended to be a wellness and lifestyle assessment.