

Microbiome Test Report

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Introduction

Welcome to your Microbiome Test Report, the evidence-based metric for your ongoing gut health journey.

This is a PDF of your test results. PLEASE NOTE: Your microbiome test includes a FREE 30-minute consultation with one of our expert Nutritional Therapists, who are specially trained to guide you through your results and answer any questions you might have. Your Nutritional Therapist will also create a bespoke Personal Action Plan to improve your gut health, based on any issues that are surfaced by the test. Your Personal Action Plan is **not** included in this PDF, as it can only be created by your Nutritional Therapist after speaking with you directly. Your Personal Action Plan (PAP) is an incredibly valuable part of the test, as it is the only way to remediate problems that are detected.

In order to enjoy the best possible customer experience, **we strongly recommend that you book your consultation immediately**, and allow your Nutritional Therapist to guide you through this process. Our Nutritional Therapists are also available 8 am to 8 pm weekdays on live chat, as well as by phone or email, to answer any questions you may have moving forward - so please take do advantage of the lifetime support we offer! We are here to help, and ensure that you understand every step of the journey.

To book your consultation, please log into your account here: https://microbiometest.chucklinggoat.co.uk

Please use this coupon code at checkout to redeem your free consultation: FREECONS928634

Why test the microbiome?

The health of your gut microbiome impacts the health of nearly every other system in your body brain, heart, skin, lungs, bones, muscles, hormones, nervous system, immune system, sleep and blood sugar regulation.

There are trillions of living bacteria inside your gut, and you can think of them as roughly divided into two sides - the good bugs, or probiotics, and the bad bugs, or pathogens. The two sides are constantly fighting for territory. The army that wins, is the army you feed.

Probiotics promote diversity and make the environment healthy for other good bugs.

Pathogens cause inflammation and kill off the good bugs.

If you've ever had food poisoning, a UTI, a dental infection, hospital-acquired infection or skin

infection, it is possible that some of the bacteria may have migrated into your gut and are still lingering there in what is called a "biofilm" This biofilm can be antibiotic-resistant and incredibly difficult to shift, and may still be present decades later. These low-grade infections may cause autoimmune symptoms over time. If your test identifies the presence of a biofilm infection inside your gut, your Nutritional Therapist will be able to recommend an antimicrobial vinegar that will help to resolve the pathogen levels.

How is the test organised?

This test, which has been designed by leading scientists at Cambridge University using the latest cutting edge science, examines your gut wellness by looking at the following categories:

- Diversity
- Probiotics
- Prebiotics
- Postbiotics
- Pathogens
- Mental wellness
- Systemic wellness

Each of these categories is given its own score, and the results are colour coded on a traffic light system, moving from green to amber to red. Green means all clear, yellow means it needs attention, and red indicates urgent attention is needed. Please do not worry if you see red scores in your PDF! Your Nutritional Therapist will create personalised solutions for these issues in your Personal Action Plan.

What does each section mean?

Diversity

The health of any ecosystem is tested by its diversity, and it's exactly the same inside your gut. We want to see as many different strains as possible thriving inside your microbiome, because a diverse ecosystem is more resilient to infection and disease.

Probiotics

Probiotics are the "good bugs" that promote a healthy balance of bacteria in the gut. Probiotics process fibre inside your system, and produce anti-inflammatory substances as a result.

Prebiotics

Prebiotics are the "food" for your good bugs. There are 19 separate types of fibres that feed probiotics, and the test checks for all of them. If you are low in some of the categories, this can be remediated by a simple dietary intervention, which will be recommended by your Nutritional Therapist in your Personal Action Plan.

Postbiotics

Happy gut bugs process fibre and produce "postbiotics" which are anti-inflammatory substances called Short Chain Fatty Acids. Checking for SFCAs is a good way to check how well your gut is functioning. We check for three separate postbiotics: acetate, butyrate and propionate.

• Pathogens

We test for fourteen different pathogens, including Campylobacter, Citrobacter, Clostridioides, Eggerthella, Enterobacter, Enterococcus, Escherichia-Shigella, Fusobacterium, Pseudomonas, Salmonella, Sphingomonas, Staphylococcus, Vibrio, Yersinia. If your test detects pathogens in your system, please don't worry! We can treat this with our laboratory-tested antimicrobial vinegars. Your Nutritional Therapist will recommend the correct vinegar for you in your Personal Action Plan.

Mental Wellness

The microbes in your digestive system impact mood, emotion, and behaviour. We call this relationship the "gut-brain axis." This connection between gut and brain can also affect personalities and social interactions, as well as other aspects of your physical and mental health. The CG Microbiome Tracker tracks your mental wellness through a series of scientifically validated questionnaires, designed to measure your levels of stress, anxiety and happiness.

• Systemic Wellness

Your systemic wellness score is a big-picture score that pulls together your mental wellness score, microbes that impact brain health along with your gut microbiome's ability to fight inflammation, resist disease, adapt to change and bounce back after pathogen infection.

Overview



Diversity

Your gut microbiome is a complex community of living microorganisms, including bacteria, viruses, fungi, and other microbes that reside in the digestive tract. Like any ecosystem, the health of your gut ecosystem is tested by its **diversity**. A diverse ecosystem is a resilient ecosystem.

Overall, a diverse gut microbiome is crucial for various aspects of our health, including digestion, immune function, protection against pathogens, metabolic health, and even mental wellbeing. Taking steps to promote gut diversity, including supplementing with kefir and prebiotics, consuming a varied and fibre-rich diet, avoiding unnecessary antibiotics, getting out into nature and leading a healthy lifestyle, can help support a balanced and thriving gut microbiome.

Your microbial diversity score is **3 out of 10**. This means the diversity of your gut microbiome is **Below Average**.

Click here to learn more about microbial diversity.

How we calculate diversity

The diversity of your gut microbiome is an essential indicator of its overall health. To measure diversity, we focus on the **richness** and the **evenness** of the bacteria in your sample. Expand each of the sections below to discover how richness and evenness contribute to your diversity score. If your Nutritional Therapist finds that any of your scores need attention, they will bring this up during your consultation and specific instructions will be added to your Personal Action Plan. You can click <u>here</u> to learn how to maintain a healthy microbial diversity score.

Richness

Microbial richness refers to the total number of different types of bacteria that live in your gut. A higher microbial richness score means a greater variety of bacteria. It contributes to better digestion, nutrient absorption, and overall physical and mental wellbeing. Chuckling Goat scientists use the **Shannon Diversity Index** to calculate the microbial richness in your sample. You can click <u>here</u> to learn more about microbial richness.



Evenness refers to how equally different bacteria are distributed in your gut. Microbial evenness is high when microbes coexist in equal proportions. Conversely, evenness is likely to be low if one type of microbe dominates while others are barely present. A high evenness score indicates a balanced gut microbiome that supports digestion, nutrient absorption, and gut barrier integrity. Chuckling Goat scientists use the **Simpson Index** to measure the evenness of your gut microbiome. You can learn more about microbial evenness <u>here</u>.

Your microbiome representation



Probiotics

Probiotics are live microorganisms that provide health benefits when consumed in adequate amounts. They are often referred to as "good bacteria" because they promote a healthy balance of bacteria in the gut.

You have populations of probiotics already living inside your gut, alongside pathogens or "bad bacteria" which can cause health problems. Think of it as the good army vs. the bad army, always fighting for territory inside your gut. You can boost the good army by consuming probiotics in a fermented food such as kefir.

Probiotics are important markers for wellbeing because they perform many critical functions inside your gut microbiome, which in turn controls the health of your skin, mood, digestion, energy, breathing and systemic pain levels.

Probiotics also break down prebiotic dietary fibers into important **postbiotics** like short-chain fatty acids (butyrate) and vitamins.

We assess the levels of probiotics, prebiotics, postbiotics and pathogens in your gut using the cutting-edge technology of 16s rRNA sequencing, at Cambridge University Genomics.

Your probiotic score is **4 out of 10**. This means your level of probiotic bacteria is **Below Average**.

Lactic acid bacteria

Lactic acid bacteria are friendly microbes that help break food down, produce vitamins, and keep harmful bacteria in check by regulating the acidity levels of the gut. Additionally, lactic acid bacteria support the function of the gastrointestinal and immune systems and contribute to your overall mental and physical wellbeing. You can click <u>here</u> to learn more about lactic acid bacteria.

Lactobacillus

Lactobacillus are a group of beneficial bacteria commonly found in your gut, your urinary tract and in fermented foods. Our kefir is particularly rich in Lactobacillus species! Apart from your general Lactobacillus score, we also display the percentage of other Lactobacillus species in your sample known for their health-promoting properties. You can click <u>here</u> to learn more about Lactobacilli and their health-balancing roles in and beyond your gut.



Lactococcus

Lactococcus are a group of health-promoting bacteria that live in your gut. They break down sugars, support digestion, and maintain the right balance of good bacteria in your colon. We feature Lactococcus lactis specifically because it's a critical member of this genus that also happens to be present in our kefir. You can click <u>here</u> to learn more about Lactococcus.

Your microbiome representation 0.004%



Bifidobacterium

Bifidobacterium is the name for a critical group of beneficial bacteria that live in your gut. They play a crucial role in breaking down food, helping you absorb nutrients, and fighting off disease-causing pathogens. Bifidobacterium also boosts the production of short-chain fatty acids by producing acetate that other microbes feed on, converting it to butyrate. People with higher levels of Bifidobacterium are less frequently affected by gastrointestinal disorders. Additionally, Bifidobacterium appears to influence mental wellbeing via gut-brain communication. Click <u>here</u> to learn more about how Bifidobacterium help you stay healthy and happy.

Bifidobacterium

Different species of **Bifidobacteria** support gut health by promoting digestion, enhancing immune function, and maintaining a balanced gut microbiome. Bifidobacteria are commonly found in fermented foods like sourdough bread, sauerkraut and kimchi. You can learn more about Bifidobacterium in the <u>handbook</u>.

Your microbiome representation



Metabolic regulators

This group of microbes features two bacteria known for regulating your metabolism: **Akkermansia muciniphila** and **Christensenella minuta**. High levels of Akkermansia lower the risk of obesity and improve insulin sensitivity. Christensenella can protect against weight gain and is inherited from your parent's microbiome. Click <u>here</u> to learn more about microbes with metabolic regulating functions.

Akkermansia

Akkermansia muciniphila is a health-promoting microbe that lives in the mucus layer that protects the gut lining. It feeds on mucin, the building block of mucus. That way, Akkermansia helps regulate the thickness and composition of the mucus layer, supporting your immune system and protecting your gut from harmful pathogenic bacteria. Akkermansia has also been linked to the ability to maintain a healthy weight. You can click <u>here</u> to learn more about the beneficial roles of Akkermansia.



Christensenella

Christensenella minuta is a gut microbe that has been linked to weight regulation, particularly the storage of body fat. Additionally, emerging science suggests that people with a higher abundance of Christensenella may have a lower risk of developing metabolic conditions like obesity and type 2 diabetes. You can click <u>here</u> to learn more about Christensenella and its roles as part of a balanced gut microbiome.



Butyrate producers

The short-chain fatty acid **butyrate** is an all-important molecule for human health. In fact, the cells lining the colon use butyrate as their main source of nourishment. Butyrate passes through the gut lining and travels around the body via your bloodstream, reaching organs as far as the heart, the lungs, and the brain where it plays a balancing, anti-inflammatory role. This section tells you about the levels of the butyrate-producing bacteria **Faecalibacterium**, **Roseburia** and **Coprococcus**. Click <u>here</u> to learn about butyrate-producing bacteria and their health-promoting roles.

Coprococcus

Coprococcus species are versatile gut microbes that can thrive on a range of different prebiotics, from resistant starch to polyphenols. Clinical studies have found that an abundance of Coprococcus helps lower the risk of developing irritable bowel syndrome (IBS), reducing the severity of the symptoms in people who already live with the condition. Click <u>here</u> to learn more about how Coprococcus contributes to a healthy gut microbiome.

Your microbiome representation 0.000%



Faecalibacterium

Faecalibacterium prausnitzii is an important butyrate producer. People with higher Faecalibacterium levels tend to have lower inflammation levels and fewer gastrointestinal disorders. As a rule of thumb, an abundance of **Faecalibacterium** is a marker of good gut health. Click <u>here</u> to learn more about Faecalibacterium.

Your microbiome representation



Roseburia

Because of its butyrate-producing function, an abundance of **Roseburia** tends to mean good gut health. This reading includes **Roseburia hominis**, **Roseburia intestinalis** and other related species of this symbiotic microbe, known to flourish as a result of eating a diversity of different fibres daily. Click <u>here</u> to learn how to support Roseburia as part of a healthy gut microbiome.



Bacteria with unique properties

In this section, we feature some bacteria that contribute to human health in their own unique ways. We're referring to *Adlercreutzia*, Barnesiella, and Oxalobacter species.

Adlercreutzia

Adlercreutzia is a unique microbe that helps digest soy isoflavones. This is important because isoflavones have a chemical structure that's remarkably similar to that of oestrogen, and Adlercreutzia transforms them into powerful molecules that support physical and mental wellbeing. Soy isoflavones are particularly beneficial for women prior to, during and after the menopause. Click <u>here</u> to learn more about Adlercreutzia's unique properties.

Your microbiome representation 0.012%



Barnesiella

Barnesiella represents only a tiny percentage of a healthy microbiome. However, Barnesiella species play a critical role in helping to prevent the spread of antibiotic-resistant bacteria. Click <u>here</u> to learn more about Barnesiella's unique properties.

Your microbiome representation 0.000%



Oxalobacter

Oxalobacter breaks down oxalates in foods like spinach, rhubarb, and beetroot. Oxalates form crystals in the body and can lead to the development of kidney stones in some people. A healthy population of Oxalobacter helps minimise that risk. But Oxalobacter does a lot more than that. Click <u>here</u> to learn about Oxalobacter's unique properties.

Your microbiome representation 0.000% 0 0.01 0.022

Prebiotics

A **prebiotic** is a type of substance that serves as a food source for beneficial bacteria, or **probiotics**, in the gut. Unlike probiotics, which are live bacteria or yeasts that provide a health benefit when consumed, prebiotics are non-digestible fibres or compounds that promote the growth and activity of probiotic microorganisms. Prebiotics and probiotics work together in synergy, like flowers and bees, to promote a healthy gut ecosystem.

Prebiotics are typically carbohydrates that resist digestion in the human small intestine and reach the colon intact. Once in the colon, they undergo fermentation by the resident bacteria, resulting in the production of **postbiotics**: short-chain fatty acids (SCFAs) and other metabolites. These SCFAs, such as butyrate, acetate, and propionate, provide energy for the cells lining the colon and contribute to overall gut health.

The primary function of prebiotics is to selectively stimulate the growth and activity of beneficial bacteria, such as Bifidobacteria and Lactobacilli, while inhibiting the growth of potentially harmful bacteria. By maintaining a healthy balance of gut microbiota, prebiotics support various aspects of human health, including digestion, immune function, and the synthesis of certain vitamins and nutrients.

In this test, we determine your ability to break down the 19 most important dietary fibres by examining the levels of the bacteria responsible for their fermentation using the cutting-edge technology of 16s rRNA sequencing, at Cambridge University Genomics.

<u>CG Complete Prebiotic</u> contains a natural source for each of these fibres, making it quick and easy to boost these bacterial populations.

Your prebiotic score is **7 out of 10**. This means your microbiome's potential to digest prebiotic fibres is **Good**.

To find out more about prebiotics click here.

Arabinan

Arabinan is a prebiotic fibre found in fruits, vegetables, and whole grains. Our Complete Prebiotic provides a good source of arabinan. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of arabinan, helping support your gut health and contributing to your physical and mental wellbeing. Other specific sources of arabinan include apples, pears, carrots, tomatoes, quinoa, rye, and corn.

Your digestibility score for arabinan is 8. This is based on the levels of arabinan-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of



Arabinogalactan

Arabinogalactan is a prebiotic fibre found in the bark of larch trees and in Maitake mushrooms. Our Complete Prebiotic provides a good source of arabinogalactan. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of arabinogalactan, helping support your gut health and contributing to your physical and mental wellbeing. Other specific sources of arabinogalactan include carrots, radishes, pears, tomatoes, coconut, and echinacea.

Your digestibility score for arabinogalactan is 4. This is based on the levels of arabinogalactan-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of arabinogalactan.



Arabinoxylan

Arabinoxylan is a prebiotic fibre found in the cell walls of whole grains. Our Complete Prebiotic provides a good source of arabinoxylan. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of arabinoxylan, helping support your gut health and contributing to your physical and mental wellbeing. Other specific sources of arabinoxylan include wheat, rye, barley, oats, and rice.

Your digestibility score for arabinoxylan is 8. This is based on the levels of arabinoxylan-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of arabinoxylan.



Betaglucans

Beta-glucans are prebiotic fibres found in the cell walls of some mushrooms, certain whole grains, and seaweeds. Our Complete Prebiotic provides a good source of beta-glucans. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of beta-glucans, helping support your gut health and contributing to your physical and mental wellbeing. Other specific sources of beta-glucans include oats, barley, rye, wheat bran, Maitake, shiitake and reishi mushrooms, and some seaweeds like nori and kelp.

Your digestibility score for beta-glucans is 8. This is based on the levels of beta-glucan-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of beta-glucans.



Celluloses/Hemicelluloses

Celluloses and hemicelluloses are fibres primarily found in the cell walls of plants, providing structural integrity and rigidity. The main sources of these fibres include whole grains, seeds, nuts, and various vegetables. Our Complete Prebiotic provides a significant amount of celluloses and hemicelluloses. Incorporating a scoop of Complete Prebiotic into your daily gut health regimen can elevate your intake of these essential fibres, further bolstering gut health and enhancing overall physical and mental wellbeing. Other specific sources of celluloses and hemicelluloses comprise fruits like apples, pears, and kiwi, vegetables like broccoli, spinach, and Brussels sprouts, and pulses/legumes like beans and lentils.

Your digestibility score for celluloses/hemicelluloses is 8. This is determined by the concentration of cellulose/hemicellulose-metabolising bacteria present in your sample. Click here to delve deeper into the health advantages of celluloses and hemicelluloses.



Chitin

Chitin is a peculiar fibre found in mushrooms. Our Complete Prebiotic provides a good source of chitin. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of chitin, helping support your gut health and contributing to your physical and mental wellbeing. Other specific sources of chitin include edible insects and

crustacean shells.

Your digestibility score for chitin is 8. This is based on the levels of chitin-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of chitin.



Fructooligosaccharide

Fructooligosaccharides (FOS) are prebiotic fibres that occur naturally in foods like chicory root, Jerusalem artichokes, onions and garlic. Our Complete Prebiotic provides a good source of FOS. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of FOS, helping support your gut health and contributing to your physical and mental wellbeing. Other specific sources of FOS are ripe bananas (especially when they have brown spots), and asparagus.

Your digestibility score for fructooligosaccharides is 7. This is based on the levels of fructooligosaccharides-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of fructooligosaccharides.



Galactans

Galactans are prebiotic fibres found in various plant-based foods. Our Complete Prebiotic provides a good source of galactans. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of galactans, helping support your gut health and contributing to your physical and mental wellbeing. Specific sources of galactans include pulses/legumes (chickpeas, lentils, beans), as well as Brussels sprouts.

Your digestibility score for galactans is 8. This is based on the levels of galactan-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of galactans.



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Galacto-oligosaccharides

Galactooligosaccharides (GOS) are prebiotic fibres found in human milk. GOS contribute to developing a healthy colony of Bifidobacterium and Lactobacillus in the baby's microbiome. Some foods containing GOS that adults can benefit from include lentils, chickpeas and beans, onions, garlic, and leeks. Consuming these sources of galactans regularly can help support gut health, promoting the growth of beneficial gut bacteria.

Your digestibility score for galactooligosaccharides is 8. This is based on the levels of galactooligosaccharide-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of galactooligosaccharides.



Guar Gum

Guar gum is a dietary fibre derived from the seeds of the guar plant (Cyamopsis tetragonoloba). Our Complete Prebiotic provides a good source of guar gum. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of guar gum, helping support your gut health and contributing to your physical and mental wellbeing. Other specific sources of food sources of guar gum include guar beans, lentils, peas, and soybeans.

Your digestibility score for guar gum is 8. This is based on the levels of guar gum-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of guar gum.



Isomalto-oligosaccharides

Isomaltooligosaccharides (IMOs) are prebiotic fibres found in some fermented foods such as miso and soy sauce. Our Complete Prebiotic provides a good source of IMOs. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of IMOs, helping support your gut health and contributing to your physical and mental wellbeing. IMOs are naturally sweet, so other specific sources include high-maltose syrups used as a natural sweetener in low-sugar foods such as snack bars and breakfast cereals. **Your digestibility score for isomaltooligosaccharides is 8.** This is based on the levels of IMO-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of isomaltooligosaccharides.



Inulin

Inulin is a prebiotic fibre that's resistant to digestion in the small intestine and reaches the large intestine intact, where it serves as a food source for beneficial gut bacteria like Bifidobacterium. Our Complete Prebiotic provides a good source of inulin. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of inulin, helping support your gut health and contributing to your physical and mental wellbeing. Other specific sources of inulin include chicory root, Jerusalem artichokes, asparagus, onions and garlic, bananas, whole grains, dandelion greens, and agave syrup.

Your digestibility score for inulin is 8. This is based on the levels of inulin-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of inulin.



Mannan-oligosaccharides

Mannan-oligosaccharides (MOS) are prebiotic fibres derived from the cell walls of yeast. They are short chains of a molecule called mannose with known benefits for gut health and immune function. Our Complete Prebiotic provides a good source of MOS. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of MOS, helping support your gut health and contributing to your physical and mental wellbeing. Other specific sources of mannan-oligosaccharides include brewer's yeast and nutritional yeast extract.

Your digestibility score for mannan-oligosaccharides is 8. This is based on the levels of mannan-oligosaccharide-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of mannan-oligosaccharides.



Omega-3

Omega-3 fatty acids (omega 3 for short) are a type of polyunsaturated fats that are considered essential for human health. They are included in this section because they can support the growth and activity of beneficial gut bacteria. The main sources of omega-3 fatty acids include oily fish like salmon, mackerel, sardines, and trout. For people who don't eat fish, flaxseeds, walnuts, and hemp seeds are plant-based sources of omega-3 fatty acids. There are also plant-based omega-3 nutritional supplements derived from algae.

Your digestibility score for omega-3 fatty acids is 6. This is based on the levels of omega-3-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of omega-3 fatty acids.



Pectin

Pectin is a soluble fibre that is not digestible by humans. Bacteria such as Ruminoccocus and Lachnospira digest it for us, producing health-promoting postbiotics as a result. Our Complete Prebiotic provides a good source of pectin. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of pectin, helping support your gut health and contributing to your physical and mental wellbeing. Specific sources of pectin include citrus fruits, apples, berries, pears, and guavas.

Your digestibility score for pectin is 6. This is based on the levels of pectin-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of pectin.



Resistant starch is a unique type of starch that resists digestion in the small intestine and proceeds to the colon, where it feeds beneficial gut bacteria. Prime sources of resistant starch include cooked and cooled potatoes, green bananas, and whole grains like oats. Our Complete Prebiotic offers a rich source of resistant starch. By adding a scoop of Complete Prebiotic to your gut-nourishing smoothie, you can augment your daily intake of resistant starch, promoting gut health and contributing positively to your physical and emotional wellbeing. Other specific sources of resistant starch encompass legumes like lentils and chickpeas, as well as certain seeds and nuts.

Your digestibility score for resistant starch is 7. This score reflects the levels of resistant starch-metabolising bacteria identified in your sample. Click <u>here</u> to explore more about the beneficial roles of resistant starch in health.



Xylooligosaccharides

Xylooligosaccharides (XOS) are a prebiotic fibre derived from some surprising plant sources like the hardwoods of birch and beech. They are added as a prebiotic to food products like low-sugar foods and drinks to promote the growth of beneficial gut bacteria. Our Complete Prebiotic provides a good source of XOS. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of XOS, helping support your gut health and contributing to your physical and mental wellbeing. Other specific sources of XOS include rice, oat and wheat bran, and bamboo shoots. Pears, watermelon, and onions also contain small amounts of XOS.

Your digestibility score for xylooligosaccharides is 8. This is based on the levels of xylooligosaccharide-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of xylooligosaccharides.



Xylan

Xylan is a prebiotic fibre derived from some surprising plant sources, including the hardwoods of birch, beech, oak, and eucalyptus. Xylan is added as a prebiotic to a range of foods and drinks to promote the growth of beneficial gut bacteria. Our Complete Prebiotic

provides a good source of xylan. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of xylan, helping support your gut health and contributing to your physical and mental wellbeing. Other specific sources of xylan include oats, wheat bran, and corn husks.

Your digestibility score for xylan is 8. This is based on the levels of xylan-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of xylan.



Xyloglucan

Xyloglucan is a complex fibre found in the cell walls of plants. The main sources of xyloglucan include chia seeds, flaxseeds, and fenugreek seeds. Our Complete Prebiotic provides a good source of xyloglucan. Adding a scoop of Complete Prebiotic to your gut health smoothie will contribute to your intake of xyloglucan, helping support your gut health and contributing to your physical and mental wellbeing. Other specific sources of xyloglucan include fruits like bananas, apples, and pears, vegetables like carrots, cucumbers, tomatoes, and celery, and pulses/legumes like lentils and chickpeas.

Your digestibility score for xyloglucan is 8. This is based on the levels of xyloglucan-metabolising bacteria found in your sample. Click <u>here</u> to learn more about the health-promoting roles of xyloglucan.



Postbiotics

When your probiotic gut bugs are happy and healthy, they ferment fibre-based **prebiotics** and produce anti-inflammatory molecules called **postbiotics**.

Postbiotics perform many beneficial roles in your system including helping to regulate and balance immune response, reduce inflammation, improve digestion and nutrient absorption, and inhibit the growth of harmful pathogens. Postbiotics can also help neutralise harmful free radicals in the body, strengthen the intestinal barrier, regulate glucose metabolism and influence energy balance.

In this test we measure your gut microbiome's potential to produce the postbiotic short-chain fatty acids (SCFAs) **butyrate**, **acetate**, and **propionate** using the cutting-edge technology of 16s rRNA sequencing, at Cambridge University Genomics.

Your postbiotic score is **5 out of 10**. This means your microbiome's potential to make short-chain fatty acids is **Average**.

To find out more about postbiotics click here.

Butyrate

Also known as butyric acid, **butyrate** is a waxy molecule produced by some gut bacteria when you eat fibre-rich foods like fruit, vegetables, whole grains, nuts and seeds. Some microbes can even make butyrate out of plant and fish oils. Butyrate is particularly important because it is the primary energy source for the cells that line your large intestine. This section looks into the bacteria with the best scientific evidence supporting their role as butyrate producers. Based on their abundance, we give you a score for your butyrate production potential. You can click <u>here</u> to learn more about the health-promoting roles of butyrate.

Agathobacter

Agathobacter is a beneficial group of bacteria that plays a vital role in human health. Agathobacter contributes to a healthy gut microbiome by producing butyrate, helping regulate immune response, and supporting nutrient absorption. You can learn more about Agathobacter <u>here</u>.

Your microbiome representation 0.200%

Anaerostipes

6.411

Anaerostipes specialise in converting the short-chain fatty acid acetate, along with other molecules like lactate, into the postbiotic butyrate. Studies have found that people with irritable bowel syndrome (IBS) tend to have lower levels of Anaerostipes. You can learn more about Anaerostipes <u>here</u>.

Your microbiome representation



Butyricicoccus

Butyricicoccus is a valuable member of the gut microbial ecosystem because of its ability to produce butyrate. Butyricicoccus supports the health of the gut lining and promotes healthy immune function. You can learn more about Butyricicoccus <u>in the handbook</u>.

Your microbiome representation



Butyricimonas

Butyricimonas species are beneficial for gut health as butyrate producers. They contribute to maintaining a healthy inflammatory response in and beyond the gut. You can learn more about Butyricimonas by clicking <u>here</u>.

Your microbiome representation



Butyrivibrio

Butyrivibrio species produce butyrate that nourishes colon cells, supports gut barrier function, reduces inflammation, and promotes overall gut health. You can learn more about Butyrivibrio <u>in the handbook.</u>

Your microbiome representation 0.002% 0.001 0.1 Coprococcus

Coprococcus species are versatile gut microbes that can thrive on a range of different prebiotics, from resistant starch to polyphenols. Clinical studies have found that an abundance of Coprococcus helps lower the risk of developing irritable bowel syndrome (IBS), reducing the severity of the symptoms in people who already live with the condition. Click <u>here</u> to learn more about how Coprococcus contributes to a healthy gut microbiome.

Your microbiome representation 0.000%



Faecalibacterium

Faecalibacteriumprausnitzii and other related species are crucial butyrate producers. Research shows that Faecalibacterium is essential for human health due to its role in regulating inflammation, maintaining gut barrier function, inhibiting harmful bacteria, and its association with reduced risk of inflammatory and autoimmune diseases. As a rule of thumb, abundant Faecalibacterium can be seen as a sign of a healthy gut microbiome. Click <u>here</u> to learn more about the many roles of Faecalibacterium in human health.

Your microbiome representation



Flavonifractor

Flavonifractor species help extract flavonoids from foods like tea, coffee and cocoa. Flavonifractor species also produce butyrate, and their abundance is linked with positive health outcomes. You can learn more about Flavonifractor <u>in the handbook</u>.



Pseudoflavonifractor

Pseudoflavonifractor is a small group made up of only two species that have been linked with the ability to maintain a healthy weight. Additionally, just like its close relative, Flavonifractor, Pseudoflavonifractor can make postbiotics from flavonoids in foods like coffee, tea, and cocoa. You can learn more about Pseudoflavonifractor <u>in the handbook</u>.

Your microbiome representation



Lachnospira

Lachnospira is a key player in gut health due to its ability to produce butyrate. As a result, Lachnospira promotes the health of colon cells, helps regulate the immune system, preserves gut barrier function, and supports a healthy and balanced gut microbiome. You can learn more about Lachnospira in the handbook.



Roseburia

Roseburia plays a crucial role in gut health by producing butyrate. Additionally, an abundance of Roseburia is seen by microbiome scientists as a positive sign in terms of both gut and metabolic health. Click <u>here</u> to learn more about Roseburia.



Acetate

Also known as acetic acid, **acetate** is the most abundant short-chain fatty acid produced by gut bacteria. Acetate helps regulate the acidity of your gut ecosystem. This promotes the growth of acid-loving, health-promoting bacteria and keeps acid-hating pathogens away. Whenever too much of it is circulating at any given time, other microbes will feed on it and produce butyrate, a vital energy source for your gut cells. You can click <u>here</u> to learn more about the health-promoting roles of acetate.

Akkermansia

Akkermansia is a unique inhabitant of the gastrointestinal tract because it feeds on mucin, the molecule that provides structural support for the intestinal mucus layer that protects the gut lining. In exchange, Akkermansia produces acetate and propionate. This increases the acidity around the gut lining, which helps keep pathogens away. Additionally, people with

abundant Akkermansia tend to manage their blood sugar and insulin levels more efficiently. You can learn more about Akkermansia <u>in the handbook</u>.



Bifidobacterium

Bifidobacteria are health-promoting gut bacteria. Scientific evidence documents how Bifidobacteria play an important role in breaking down food, helping you absorb nutrients, and fighting off disease-causing pathogens. Bifidobacterium also boosts the production of other short-chain fatty acids by feeding acetate to other microbes that produce butyrate from it. Overall, Bifidobacteria are great at keeping your gut microbial ecosystem healthy and balanced. You can learn more about Bifidobacterium <u>in the handbook</u>.

Your microbiome representation



Blautia

Blautia species have the ability to inhibit visceral fat accumulation in people of all ages, from children to adults. That's besides being a crucial acetate producer. You can learn more about Blautia <u>in the handbook</u>.



Coprococcus

Coprococcus is known to play an important role in human health thanks to its versatility. Not only does it produce acetate, but it also helps with the production of B vitamins and butyrate. Apart from being a sign of gastrointestinal health, abundant Coprococcus levels can make it easier to keep a healthy weight. You can learn more about Coprococcus <u>in the handbook</u>.





Dorea

Dorea is often found as part of a group that includes Ruminococcus, Faecalibacterium, and Roseburia species, all of which contribute to maintaining a balanced gut microbial ecosystem. Dorea helps maintain this balance by producing acetate. You can learn more about Dorea in the handbook.

Your microbiome representation 0.005%



Lactobacillus

Lactobacillus represent only a tiny percentage of all gut bacteria but are critical members of your gut microbial ecosystem. Lactobacillus species promote digestion and regulate immune function and gut barrier integrity while inhibiting harmful bacteria and reducing inflammation. They may also impact mental health due to the gut-brain connection. Click <u>here</u> to learn more about how Lactobacillus can help you stay healthy and happy.

Your microbiome representation



Prevotella

Prevotella is a large and diverse group of bacteria. It's one of the most important groups found in the oral cavity and large intestine of humans. Prevotella species are experts at breaking down complex carbohydrates, so those who live a predominantly plant-based lifestyle should have abundant levels of this all-important microbe. You can learn more about Prevotella <u>in the handbook</u>.

Your microbiome representation

0.122%

0.065

10.982

Ruminococcus

Ruminococcus species specialise in breaking down and converting complex carbohydrates into a variety of nutrients, including acetate. Several Ruminococcus speciesplay an important role in the digestion of celluloses from plant cell walls. On that basis, you can expect to find abundant Ruminococcus in your gut if you eat plenty of plants daily. You can learn more

about Ruminococcus in the handbook.



Propionate

We know less about propionate than about butyrate or acetate, but that doesn't mean it's less important. In fact, the body of evidence documenting its health benefits continues to grow. Propionate-producing bacteria have been found to enable us to manage our blood sugar and cholesterol levels more efficiently. Good levels of propionate-producing microbes are also reported to help us maintain lower body fat levels and to keep inflammation processes at bay. You can click <u>here</u> to learn more about the health-promoting roles of propionate.

Alistipes

Alistipes break down fibres in cruciferous vegetables like cabbage, broccoli, or cauliflower, contributing to propionate production. You can learn more about Alistipes in the handbook.





Coprococcus

Coprococcus are typical inhabitants of the human gut. Coprococus break fibre into butyrate, acetate, and propionate. Clinical studies have found that an abundance of Coprococcus helps lower the risk of developing irritable bowel syndrome (IBS), reducing the severity of the symptoms. You can learn more about Coprococcus <u>in the handbook</u>.



0	0.65	1.155	1.585	2.5111

Veillonella

Veillonella is part of the normal oral and gastrointestinal tract flora and may also be found in

the vaginal microbiome. Veillonella breaks down lactic acid produced by exercise and transforms it into propionate. The human body then uses that propionate to improve exercise capacity. You can learn more about Veillonella <u>in the handbook</u>.



Sutterella

Sutterella species can feed on resistant starch, contributing to the production of propionate that helps support metabolic health and gut barrier function. You can learn more about Sutterella <u>in the handbook</u>.



Megasphaera

Megasphaera species ferment resistant starch and pectin, producing propionate as a byproduct. As a result, Megasphaera species are being studied for their role in metabolic health and appetite regulation. You can learn more about Megasphaera <u>in the handbook</u>.

Your microbiome representation 0.000%

0.001

0.2

Pathogens

Gut pathogens are microorganisms that can cause infections or diseases in the gastrointestinal tract, specifically the intestines. These pathogens are bacteria that have the potential to disrupt the normal functioning of the digestive system and lead to various symptoms and health issues.

Pathogens can be transmitted through contaminated food and water, poor hygiene practices, contact with infected individuals, or exposure to environments harbouring the pathogens.

At Chuckling Goat we have found that these bacteria, which are often antibiotic-resistant, have a tendency to form a "biofilm" inside the gut, which can persist for decades, causing autoimmune symptoms to emerge. Our ongoing research at CG has uncovered herbal antimicrobials that can inhibit these biofilms and restore balance to the microbiome. If your test shows high levels of a particular pathogen, your Nutritional Therapist can advise on the appropriate herbal antimicrobial for you.

The pathogens that we test for include: Campylobacter, Citrobacter, Clostridioides, Eggerthella, Enterobacter, Enterococcus, Escherichia-Shigella, Fusobacterium, Pseudomonas, Salmonella, Sphingomonas, Staphylococcus, Vibrio, Yersinia.

Your pathogen score is **1 out of 10**. This means your level of pathogenic bacteria is **Poor**.

To find out more about Pathogens click <u>here</u>.

Proteobacteria

Proteobacteria are a large group of bacteria found in various ecosystems, including the human gut. They can play diverse roles, from supporting digestion to producing B vitamins. However, an overgrowth of Proteobacteria can be linked to health issues, like higher levels of inflammation and an imbalance in the microbial community.

In this report, we focus on Proteobacteria that are known pathogens or that behave like pathogens, including **Escherichia-Shigella**, **Sphingomonas**, **Pseudomonas**, **Citrobacter**, **Yersinia**, **Vibrio**, **Enterobacter**, and **Salmonella** species. Click <u>here</u> to learn more about Proteobacteria.

Citrobacter

Citrobacter is a common gut pathogen that can disrupt the balance of the gut microbiome, contributing to gastrointestinal issues. You may have **Citrobacter** lingering in your gut following a chest or hospital-acquired urinary tract infection. Your Citrobacter levels are **Optimum.** If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more about this microbe.

Your microbiome representation 0.001%		
0	0.02	0.03

Enterobacter

Enterobacter lives in soil, water, and plants. It can survive in raw fruits and vegetables, meat, and dairy products. Enterobacter can even survive seemingly clean industrial and clinical environments. Some Enterobacter may have found a way to stay in your gut after a chest, skin, or urinary tract infection, even after an eye infection. Your Enterobacter levels are **Needs Attention**. If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more about this microbe.

Your microbiome representation



Escherichia-Shigella

Escherichia coli (E. coli) and **Shigella**are technically different pathogens but so closely related that they are grouped together. Both E. coli and Shigella release potent toxins that may lead to inflammation and disease. Your Escherichia-Shigella levels are **Needs Attention**. If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more about this microbe.

Your microbiome representation

18.980%

0.075

Pseudomonas

Pseudomonas is found widely in the environment, soil, water, and plants. Some Pseudomonas species are highly antibiotic-resistant and can linger in your body after a hospital-acquired infection. Your Pseudomonas levels are **Optimum**. If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more about this microbe.

Your microbiome representation 0.000%

Salmonella

Sources of **Salmonella** include raw and undercooked meat, e.g. chicken, turkey, duck, beef, veal, and pork. Raw fruits or vegetables, raw milk and other dairy products, including soft cheese, ice cream, and yoghurt, can also be infected by Salmonella, as can raw or undercooked eggs, processed foods like chicken nuggets and nut butter. Even if you don't eat these foods, you could have some Salmonella in your gut. Poor handwashing after using the toilet, changing a diaper, or stroking your dog, cat, birds, and even your reptile pet can pass on Salmonella. Your Salmonella levels are **Optimum**. If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more about this microbe.

Your microbiome representation 0.000%



Sphingomonas

You may find **Sphingomonas** in your gut if you've had a lung infection, a stomach ulcer, or if you've recently been hospitalised. Your Sphingomonas levels are **Optimum**. If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more about this microbe.

Your microbiome representation 0.000%



Vibrio

Typical sources of **Vibrio** include contaminated water or food. Vibrio is often found in street foods sold in regions of the world experiencing an outbreak. Raw or undercooked shellfish can also be contaminated with Vibrio. Your Vibrio levels are **Optimum**. If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more about this microbe.

Your microbiome representation 0.000%



Yersinia

The most common source of **Yersinia** is raw or undercooked pork, but even vegans can have it in their gut, as it can be passed on when shaking hands or touching contaminated objects. Your Yersinia levels are **Optimum**. If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more about this microbe.

Your microbiome representation 0.000%



Bacilli

Bacilli are a group of rod-shaped bacteria found in various environments, including the human gut. Some Bacilli can be beneficial, helping to maintain a healthy balance of bacteria in the gut, while others can be harmful and cause infections. This report only covers pathogenic Bacilli, specifically **Enterococcus** and **Staphylococcus**.

Enterococcus

Poor hygiene is the main route of transmission for **Enterococcus**. Not washing your hands properly after toilet use and using objects such as telephones, doorknobs, towels, and soaps in shared facilities tend to be the culprits. Your Enterococcus levels are **Optimum**. If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more about this microbe.



Staphylococcus

Staphylococcus isspread from person to person by direct contact with contaminated objects. These include gym equipment, telephones, doorknobs, television remote controls, and elevator buttons. Staphylococcus infection can also be passed on by inhalation of infected droplets dispersed by sneezing or coughing. Your Staphylococcus levels are **Optimum**. If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more

about this microbe.



Actinobacteria

Actinobacteria are a group of bacteria commonly found in the human gut microbiome. They play essential roles in maintaining gut health by breaking down complex carbohydrates from our diet, producing essential vitamins like B12, and preventing the growth of harmful bacteria. Some Actinobacteria are pathogenic, like **Eggerthella**, which this report focuses on.

Eggerthella

If you can think of a time when you had an abscess or a wound that took a long time to heal, that could be the reason that explains why **Eggerthella** may be in your sample. Other sources include obstetric, intra-abdominal and urinary tract infections. Your Eggerthella levels are **Optimum**. If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more about this microbe.



Fusobacteria

Fusobacteria are a group of bacteria found in the oral cavity, from which it can migrate to the gut. Fusobacteria can be harmful and are associated with increased gut inflammation.

Fusobacterium

Dental infections (teeth/gums) are the most common sources of **Fusobacterium**. When this microbe finds its way into your gut, it increases inflammation, leading to the development of different diseases. Your Fusobacterium levels are **Needs Attention**. If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more about this microbe.



Campylobacteria

Campylobacteria are a group of bacteria commonly found in the gut microbiome of humans and animals. While some species of Campylobacter can coexist harmlessly in the gut, others can cause foodborne infections, leading to symptoms like diarrhoea, fever, and abdominal pain. When abundant, Campylobacter species have the ability to disrupt the balance of beneficial bacteria and negatively impact gut health.

Campylobacter

Most common sources of **Campylobacter**include raw meat, particularly raw or undercooked poultry such as chicken, turkey, etc. Raw unpasteurised milk or untreated water (including ice cubes made from untreated water), mushrooms, and shellfish can also be contaminated with Campylobacter, as can cats, dogs, and farm animals. Your Campylobacter levels are **Optimum**. If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more about this microbe.

Your microbiome representation 0.001%



Clostridia

Clostridia is a group of bacteria found in the gut microbiome. They play various roles in maintaining gut health, such as breaking down complex carbohydrates, producing short-chain fatty acids that nourish gut cells, and promoting a balanced immune system. Some Clostridia species are beneficial, but other can cause infections if they overgrow or if they enter the bloodstream. In this report, we focus on the pathogen **Clostridioides**.

Clostridioides

Clostridioides significantly impact human health, with C. difficile causing severe infections, particularly in healthcare settings. Understanding and addressing the risks associated with

C. difficile is crucial for protecting the delicate balance of the gut microbial ecosystem. Your Clostridioides levels are **Optimum**. If your Nutritional Therapist finds that this level needs attention, you will find a specific herbal inhibitor added to your Personal Action Plan. You can click <u>here</u> to learn more about this microbe.





Mental Wellness

The "gut-brain axis" is the link between the gut microbiota and the brain. The microbes in our digestive system impact mood, emotion, and behaviour. They can also also affect our personalities and social interactions, as well as other aspects of our physical and mental health.

The gut can significantly influence the brain, and vice versa. This explains why stomach problems are one of the most common symptoms of stress and anxiety. Inflammation of the gut can also increase anxiety and depression.

The CG Microbiome Tracker tracks your mental wellness through a series of validated questionnaires, designed to establish your levels of stress, anxiety and mental resilience. You can watch your mental wellness improve over time as you follow your gut health protocol.

Stress

Stress is the body's normal and adaptive response to demanding or threatening situations. It triggers a cascade of psychological and bodily changes, including increased heart rate, elevated blood pressure, heightened alertness, and the release of stress hormones. Recent science shows that chronic or excessive stress disturbs the composition and diversity of the gut microbial ecosystem and that it has negative effects on both physical and mental wellbeing. We use the **Perceived Stress Scale (PSS)** by Sheldon and colleagues (1983) to measure stress. The PSS is the most cited validated questionnaire in stress research. Your score helps you understand the degree to which life appears stressful, and it helps our scientists understand the relationship between stress and the gut microbiome.

To find out more about the Perceived Stress Scale click <u>here</u>.

Your stress score is **3 out of 10**. The stress score is inverse: a higher score indicates that you perceive life as less stressful. Additionally, a higher score suggests that stress is less likely to negatively impact your gut microbiome.



Anxiety

Anxiety is a complex mental and bodily response to perceived threats or stressors in everyday life. It involves feelings of unease, fear, and worry alongside physical symptoms

such as increased heart rate, restlessness, and muscle tension. Most relevantly, recent science shows that excessive and persistent anxiety has the ability to derange the delicate balance of your gut microbial ecosystem, contributing to symptoms such as indigestion, gas, bloating, and irregular bowel habits. We use the 7-question version of the **Generalised Anxiety Disorder scale (GAD-7)** by Spitzer and colleagues (2006) to measure anxiety. The GAD7 is the most cited validated questionnaire used in anxiety research. Your anxiety score helps you learn about your tendency to experience anxiety, and it help our scientists understand the relationship between anxiety and the gut microbiome.

To find out more about the Generalised Anxiety Disorder scale click <u>here</u>.

Your anxiety score is **1 out of 10**. The anxiety score is inverse: a higher score suggests you are less likely to experience anxiety. Furthermore, a higher score indicates that anxiety is less likely to have a negative impact on your gut microbiome.



Happiness

Happiness is a positive emotional state. It involves feelings of joy, contentment, satisfaction, and a sense of wellbeing and fulfilment in various aspects of life. Happiness can stem from a combination of factors, such as positive relationships, gratifying activities, personal achievements, and a positive mindset. It is subjective and can vary from person to person. Most relevantly, happiness is linked with positive health. We use the **Subjective Happiness Scale (SHS)** by Lyubomirsky and Lepper (1999) to measure happiness. The SHS is is the most cited measure of happiness. It helps you understand the degree to which you consider yourself happy, and it helps our scientists understand the relationship between happiness and your microbiome.

To find out more about the Subjective Happiness Scale click <u>here</u>.

Your happiness score is **2 out of 10**. The higher your score, the more positive your sense of happiness. Moreover, a higher score suggests that your mindset could be positively influencing your gut microbiome.

Your score



Systemic Wellness

Systemic wellness is an integrated approach to wellbeing that recognises the interconnection of your gut microbiome's anti-inflammatory potential, the gut-brain connection, and your microbiome resilience. These different aspects play a crucial role in promoting wellness and balance.

Anti-inflammatory potential

Your gut microbiome anti-inflammatory potential is worked out by taking into consideration a range of markers from your results, including the composition and diversity of your gut microbiome, as well as the abundance of different groups of beneficial bacteria involved in the regulation of immune function. Combining all this factors we produce your score, which gives you an indication of your gut microbiome's potential to fight inflammation, not just in the gut but throughout your body.

Your anti-inflammatory potential score is **5 out of 10**. The higher your score, the better your gut microbiome's ability to fight inflammation.



Gut-brain connection

Your gut-brain connection score indicates the potential of your gut microbiome to support brain health and a balanced mood through good and bad times. To work out your score, we aggregate your mental wellness score with the scores for a range of beneficial bacteria involved in the promotion of mental wellbeing.

Your gut-brain connection score is **6 out of 10**. The higher your score, the better your gut microbiome's potential to promote brain health and mental wellbeing.

To find out more about the gut-brain connection click <u>here</u>.



Microbiome resilience

Microbiome resilience refers to the ability of the gut microbiome to maintain a stable and diverse community of microbes despite various disturbances or challenges. To work out your microbiome resilience score, we take into account a range of factors from within your test results. Your score reflects your gut microbiome's capacity to resist infections, adapt to changes, and recover from disruptions such as the presence of high levels of pathogens.

Your gut-brain connection score is **7 out of 10**. The higher your score, the better your gut microbiome's ability to effectively regulate immune responses, metabolise nutrients, and provide protection against harmful pathogens.



Raw Data

Family

Bacteroidaceae	24.925%
Enterobacteriaceae	19.111%
Ruminococcaceae	8.191%
Lachnospiraceae	5.708%
Peptostreptococcaceae	3.497%
Coriobacteriaceae	2.417%
Veillonellaceae	1.928%
Rikenellaceae	1.331%
Other Mollicutes_RF39	1.314%
Clostridiaceae_1	1.171%
Erysipelotrichaceae	1.102%
Marinifilaceae	0.971%
Burkholderiaceae	0.910%
Tannerellaceae	0.585%
Fusobacteriaceae	0.413%
Family_XI	0.291%
Family_XIII	0.286%
Coriobacteriales_Incertae_Sedis	0.227%
Other Izimaplasmatales	0.222%
Actinomycetaceae	0.174%
Streptococcaceae	0.164%
Prevotellaceae	0.122%
Other Gastranaerophilales	0.112%
Christensenellaceae	0.099%
Clostridiales_vadinBB60_group	0.077%
Other bacteria	0.075%
Eggerthellaceae	0.073%
Akkermansiaceae	0.069%
Acidaminococcaceae	0.057%
Other Clostridiales	0.035%
Lactobacillaceae	0.027%
Desulfovibrionaceae	0.023%
Defluviitaleaceae	0.017%
Muribaculaceae	0.015%
Other Coriobacteriales	0.013%
vadinBE97	0.010%
Porphyromonadaceae	0.008%

Other Rhodospirillales	0.007%
Bifidobacteriaceae	0.006%
Other Saccharimonadales	0.006%
Eubacteriaceae	0.004%
Other Bacteroidales	0.003%
Paludibacteraceae	0.002%
Peptococcaceae	0.001%
Family_XI	0.001%
Nostocaceae	0.001%
Spirochaetaceae	0.001%
Saccharimonadaceae	0.001%
Campylobacteraceae	0.001%

Genus

Bacteroides	24.925%
Escherichia/Shigella	18.980%
Subdoligranulum	3.191%
Collinsella	2.417%
Faecalibacterium	2.234%
Other Lachnospiraceae	2.177%
Romboutsia	2.041%
Dialister	1.924%
Alistipes	1.329%
Other Mollicutes_RF39	1.314%
Clostridium_sensu_stricto_1	1.170%
Intestinibacter	0.901%
Ruminiclostridium_5	0.838%
Sutterella	0.820%
Odoribacter	0.701%
Parabacteroides	0.585%
Terrisporobacter	0.526%
Ruminococcaceae_NK4A214_group	0.494%
Lachnospiraceae_NK4A136_group	0.443%
Lachnoclostridium	0.441%
Other Erysipelotrichaceae	0.423%
Fusobacterium	0.413%
Fusicatenibacter	0.401%
Blautia	0.355%
Tyzzerella_4	0.345%
Roseburia	0.335%

Marvinbryantia	0.325%
Butyricimonas	0.270%
Lachnospiraceae_FCS020_group	0.257%
UBA1819	0.257%
Other Coriobacteriales_Incertae_Sedis	0.227%
Other Izimaplasmatales	0.222%
Turicibacter	0.207%
Ruminococcaceae_UCG-013	0.206%
Agathobacter	0.200%
Erysipelotrichaceae_UCG-003	0.184%
Ruminiclostridium_9	0.181%
Family_XIII_AD3011_group	0.166%
Negativibacillus	0.160%
Streptococcus	0.160%
Varibaculum	0.142%
Enterobacter	0.130%
Other Gastranaerophilales	0.112%
Ruminococcaceae_UCG-010	0.111%
Anaerostipes	0.110%
Solobacterium	0.104%
Anaerococcus	0.095%
Parasutterella	0.090%
Other Christensenellaceae	0.088%
Prevotella	0.087%
Oscillibacter	0.085%
Peptoniphilus	0.085%
Flavonifractor	0.077%
Other Clostridiales_vadinBB60_group	0.077%
Other bacteria	0.075%
Coprobacillus	0.072%
Family_XIII_UCG-001	0.070%
Parvimonas	0.070%
Akkermansia	0.069%
Ruminococcaceae_UCG-003	0.057%
Succiniclasticum	0.056%
Butyricicoccus	0.049%
DTU089	0.048%
Erysipelatoclostridium	0.048%
Other Family_XIII	0.045%
Ruminiclostridium_6	0.041%
Lachnospiraceae_ND3007_group	0.039%
Gordonibacter	0.036%

Other Clostridiales	0.035%
CAG-56	0.033%
Lachnospiraceae_UCG-001	0.033%
Merdibacter	0.033%
Prevotella_9	0.031%
Actinomyces	0.031%
Shuttleworthia	0.030%
Lactonifactor	0.028%
Ruminococcaceae_UCG-009	0.028%
Ezakiella	0.027%
Lactobacillus	0.027%
Tyzzerella_3	0.026%
Peptostreptococcus	0.026%
Dielma	0.024%
Candidatus_Soleaferrea	0.023%
GCA-900066575	0.022%
Eisenbergiella	0.022%
Bilophila	0.020%
Other Eggerthellaceae	0.019%
Phocea	0.018%
Defluviitaleaceae_UCG-011	0.017%
Ruminococcaceae_UCG-008	0.015%
Other Muribaculaceae	0.014%
Anaerotruncus	0.014%
Lachnospiraceae_UCG-004	0.013%
Lachnospiraceae_UCG-010	0.013%
Moryella	0.013%
Caproiciproducens	0.013%
Other Coriobacteriales	0.013%
UC5-1-2E3	0.012%
Adlercreutzia	0.012%
Sellimonas	0.011%
Pseudoflavonifractor	0.011%
Hungatella	0.010%
CAG-352	0.010%
Christensenellaceae_R-7_group	0.010%
Other vadinBE97	0.010%
Porphyromonas	0.008%
Harryflintia	0.007%
Finegoldia	0.007%
Murdochiella	0.007%
Other Rhodospirillales	0.007%

Bifidobacterium	0.006%
Other Saccharimonadales	0.006%
Dorea	0.005%
Oscillospira	0.005%
Anaerofilum	0.005%
Holdemania	0.005%
CHKCI002	0.005%
Tyzzerella	0.004%
GCA-900066225	0.004%
Anaerofustis	0.004%
Lactococcus	0.004%
Other Bacteroidales	0.003%
Other Peptostreptococcaceae	0.003%
S5-A14a	0.003%
Prevotella_7	0.002%
Rikenellaceae_RC9_gut_group	0.002%
Other Paludibacteraceae	0.002%
Butyrivibrio	0.002%
Parasporobacterium	0.002%
Ruminococcaceae_UCG-004	0.002%
Ruminococcaceae_UCG-007	0.002%
Angelakisella	0.002%
Fastidiosipila	0.002%
Mogibacterium	0.002%
Megamonas	0.002%
Veillonella	0.002%
Other Desulfovibrionaceae	0.002%
Prevotellaceae_NK3B31_group	0.001%
Paraprevotella	0.001%
CAG-873	0.001%
Oribacterium	0.001%
Acetanaerobacterium	0.001%
Christensenella	0.001%
Other Clostridiaceae_1	0.001%
Other Peptococcaceae	0.001%
Phascolarctobacterium	0.001%
Holdemanella	0.001%
Catenibacterium	0.001%
Gemella	0.001%
Citrobacter	0.001%
Desulfovibrio	0.001%
Eggerthella	0.001%

Mobiluncus	0.001%
Anabaena_XPORK15F	0.001%
Treponema_2	0.001%
Other Saccharimonadaceae	0.001%
Campylobacter	0.001%