Microbiome report



Sample ID 12345678

Sampling 31.09.2024 Analyzed 20.10.2024

Material Stool

Laboratory Procomcure

Please note

This PDF report is a summary of the most important results, for more details please view your report in the platform.

1. Microbial health

Microbial diversity

The overall diversity of your intestinal bacteria is very good! . This indicates a healthy intestinal microbiome, which optimally supports your general health and well-being.

Species richness: 270 (average: 242-366){{newline} . }Species

equality: 0.76 (average: 0.74-0.79)



□ Additional information

Diversity (= microbial diversity) describes the difference in your intestinal microbiome and is made up of species richness and species equality. Diversity is the most important parameter for analyzing the health of your intestinal microbiome. It measures how many different types of bacteria (species richness) occur in the intestine and how evenly they are distributed among the individual species (species equality)..

A bacterial community with high diversity consists of many different species and individuals . are evenly distributed.

The diversity is calculated using the "Shannon index".. This index is expressed in a single number and takes into account both species richness and species evenness (the distribution of individuals among these species). The higher the value, the better!

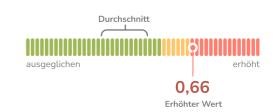
Research shows that low diversity can be linked to various health problems such as inflammatory bowel disease, obesity, metabolic disorders and autoimmune diseases, among others.

Species richness: Indicates the number of different types of bacteria in a stool sample. A high value indicates a high species richness.

Species equality: Provides information about how balanced the abundance of the different bacterial species is. A more even distribution helps prevent the dominance of a few species, making the community less vulnerable to disruption or adverse changes.

Dysbiosis index

Your intestinal microbiome is not in balance and has dysbiosis (= imbalance). With our tips you can counteract this, strengthen your intestinal bacteria and help your intestinal microbiome regain more balance.





□ Additional information

Dysbiosis describes an imbalance in your intestinal microbiome. This means that potentially harmful bacteria predominate and beneficial bacteria are crowded out. This can have various causes, such as inflammatory bowel disease. The dysbiosis index measures the severity of this imbalance. It can be useful for monitoring microbiome changes during treatments or dietary changes.

Enterotype

Enterotype 2 ("Prevotella") is associated with a plant-based diet rich in fruits, vegetables, legumes and whole grains.



Enterotype 2: Prevotella

M Additional information

Enterotypes divide the intestinal microbiome into 3 dominant bacterial groups, which establish themselves as the "basic microbiome" in the first few years of life, primarily due to genetic factors and diet. There is evidence that your enterotype influences which foods you can metabolize particularly well and how efficient vitamin production is in the intestine. Long-term eating habits can have an influence on your enterotype, as can age, health status and medication intake.

Please note that this classification and your result is only a tendency and the types may overlap{{dot} . }

Enterotype 2: Prevotella

Enterotype 2 is characterized by a dominance of the bacterial genus Prevotella. They are specialized in utilizing carbohydrates (especially fiber) and ensure good nutrient absorption in the intestines. These bacteria also produce vitamin B1 (thiamine) and folic acid. However, Prevotella bacteria can also attack the intestinal mucosa by breaking down the sugar-protein complexes present therein as soon as there is not enough fiber.

 $\textbf{Enterotype 1: Bacteroides} \{ \{ newline \ . \ \} \} \\ Enterotype \ 1 \ (\text{``Bacteroides''}) \ is \ associated \ with \ a \ diet \ rich \ in \ animal \ foods.$

Enterotype 3: . Ruminococcus

Enterotype 3 ("Ruminococcus") is associated with a diet that is balanced and rich in complex carbohydrates, including fiber.

2. Gut-body interaction

Gut-immune axis

Your gut bacteria could be more resilient to support your immune system even more effectively. Our tips will help you strengthen your intestinal microbiome.

Low support for your immune system





Additional information

The intestinal-immune axis describes the connection and interaction between the intestine and the body's immune system. Over 70% of the immune system is located in the intestines and is supported by the bacteria that live there. Certain bacteria activate immune cells or regulate their activity and produce anti-inflammatory substances such as short-chain fatty acids. The health of your intestinal microbiome is crucial for a strong immune system.

Using a stool sample, conclusions can be drawn about the strength and resilience of your immune system.

Inflammatory potential

Your intestinal microbiome is not in balance and has dysbiosis (= imbalance). With our tips you can counteract this, strengthen your intestinal bacteria and help your intestinal microbiome regain more balance.



Your result is made up of 4 metabolic pathways for LPS production:

- Precursor for LPS
- Advanced LPS blocks
- Sugar building blocks for LPS
- Surface antigens

M Additional information

The inflammatory potential in your intestine can be calculated using **Lipopolysaccharides (LPS)**. LPS are molecules that occur in the cell walls of certain bacteria.

The latest research shows how the composition of the intestinal microbiome (including the types and amounts of LPS-producing bacteria) influences the immune system in the intestine {{ . dot}}

Certain bacteria can use the metabolic pathways described to produce LPS. If there are too many LPS-producing bacteria in your gut, the potential for . Inflammation increased.

In addition, the dysbiosis index and immune strength are important parameters that can influence the inflammatory potential in the intestine.

Gut-skin axis

Your gut microbiome appears to support healthy skin.

Low tendency to skin problems



Additional information

The gut-skin axis describes the connection between the gut microbiome and skin health. Skin diseases such as acne, neurodermatitis and psoriasis are often due to inflammation in the body, which then becomes visible on the surface of the skin. Intestinal bacteria can directly regulate the immune system and inflammatory processes in the body. It is therefore possible to draw conclusions about skin health by analyzing a stool sample.

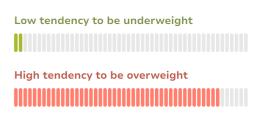


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Weight management

Your intestinal bacteria could better support you in weight regulation. If you are pursuing health goals, seek additional individual advice from a medical professional to support your well-being.



M Additional information

The composition of intestinal bacteria influences various aspects of metabolism, such as:. b. also the production of energy from food.

Several studies show that intestinal bacteria play a role in weight regulation. Some bacteria are associated with a slim appearance, while others may promote obesity.

It may be that there are bacteria in your gut that are both more associated with being underweight. also bacteria that are more associated with obesity.

Other important factors in weight regulation include diversity and short-chain fatty acids produced by bacteria.

3. Intestinal health

Leaky gut syndrome

There doesn't seem to be a connection between your gut bacteria and leaky gut syndrome. Your intestinal bacteria help maintain the barrier function of your intestinal mucosa.



Additional information

Leaky gut syndrome describes increased permeability of the intestinal mucosa. This controls which substances enter the bloodstream from the intestine. If the intestinal mucosa is impaired, unwanted substances can enter the body and trigger inflammation. A healthy intestinal microbiome is of great importance in maintaining an intact intestinal mucosa. Beneficial gut bacteria help strengthen the intestinal barrier and reduce inflammation. Please note that a high level of diversity is crucial for a healthy intestinal mucosa.

If the intestinal bacteria become unbalanced, bacteria can multiply that excessively break down mucous membrane cells and thereby make the intestinal mucosa "more holey".. This can contribute to leaky gut syndrome. A compromised intestinal mucosa is associated, among other things, with an increased risk of chronic inflammation, food intolerances, autoimmune diseases, irritable bowel symptoms and skin diseases.

Irritable bowel syndrome

There doesn't seem to be a connection between your gut bacteria and irritable bowel syndrome.







□ Additional information

Irritable bowel syndrome is a common disorder of gastrointestinal function characterized by symptoms such as diarrhea and/or constipation, bloating, and abdominal pain. Studies show that affected people often have an unfavorable composition and a lower diversity of intestinal bacteria compared to people without irritable bowel syndrome. There are numerous causes that can trigger irritable bowel syndrome or worsen symptoms. Psychological factors, such as stress, seem to play a particularly important role. Additionally, potential triggers include malnutrition, nutrient deficiencies, other illnesses, toxins, a lack of stomach acid, medications, infections, and an imbalance in the gut microbiome.

SIBO

Low tendency to SIBO

There seems to be no connection between your intestinal bacteria and possible bacterial overgrowth in the small intestine.

□ Additional information

SIBO (Small Intestinal Bacterial Overgrowth) is a bacterial overgrowth in the small intestine. Normally there are far fewer bacteria in the small intestine than in the large intestine. In SIBO, however, increased numbers of bacteria from the large intestine settle in the small intestine. This is usually triggered by slowed digestion or anatomical changes after operations. The most common symptoms are bloating, but other digestive disorders and nutrient deficiencies (especially vitamin B12) can also occur.

Research results show that bacterial overpopulation in the small intestine also has an impact on the composition of the bacteria in the large intestine. This means that a stool sample can provide evidence of the possible presence of SIBO. If you get a positive result, consider seeing a doctor and taking an additional breath test.

4. Bacteria lists

F/B ratio



tribe	Frequency (%)	Reference (%)
Firmicutes	0.22	0.2 - 0.74
Bacteroides	0.22	0.2 - 0.74

Probiotic bacteria







Bifidobacterium	tribe	genus	Frequency (%) Reference (%)
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4. Recommendations

Microbial health

Increase Fiber Intake with Whole Grains, Nuts, and Seeds

Fermented products are rich in live bacteria that support a balanced and healthy gut microbiome. These foods help maintain good levels of probiotic bacteria, reinforcing the existing beneficial microbial community.

Consume a variety of fermented foods at least three times per week:

- Yogurt and kefir: Incorporate these into your breakfast routines
- Sauerkraut and kimchi: Use as side dishes or toppings for your meals.
- Kombucha: Drink as a refreshing beverage.
- Miso: Add to soups and sauces.
- -

Grilled Salmon with Garlic Spinach and Roasted Artichokes

Ingredients:

- 2 Salmon fillets
- 1 cup fresh spinach
- 2 cloves garlic, minced
- 2 medium artichokes, trimmed and halved $\{\{$. newline $\}\}$ 1 tablespoon olive oil
- 1/2 teaspoon salt
- 1/4 teaspoon black pepper
- 1 lemon, sliced
- 1/4 cup cooked . quinoa
- 1/4 cup walnuts



Step by Step:

- 1. Preheat the Oven: Preheat your oven to 400°F (200°C). .
- 2. Prepare Artichokes: Toss artichoke halves in 1/2 tablespoon olive oil, salt, and pepper. Place them on a baking sheet, cut side down, and roast in the oven for 25-30 minutes until tender.
- 3. Grill Salmon: While the artichokes are roasting., heat a grill pan over medium-high heat. Season the salmon fillets with salt and pepper. Grill the salmon for about 4-5 minutes on each side or until fully cooked.
- 4. Sauté Spinach: In a separate pan, heat the remaining olive oil over medium . heat. Add minced garlic and sauté for about 1 minute. Add the spinach and cook until wilted, about 3-4 minutes. Season lightly with salt.
- 5. Serve: Place the grilled salmon on a plate. Add a portion of sautéed garlic spinach and roasted artichokes. Add a serving of cooked quinoa and a sprinkle of walnuts.
- 6. Garnish: Garnish with lemon slices and a drizzle of olive oil if desired.< . /li>

Enjoy your meal, packed with essential nutrients to support your gut health and overall well-being.





Gut-body interaction

Ensure a Nutrient-Rich Diet with a Focus on Fruits and Vegetables

A diet rich in various fruits and vegetables provides essential vitamins and secondary plant compounds that help improve the diversity and balance of your gut microbiome. Foods like kale, spinach, broccoli, carrots, and berries are excellent choices. For example, adding grated carrots or zucchini to your salads or blending berries into smoothies can enhance your fiber intake and introduce vital phytonutrients.

Aim to regularly consume these fruits and vegetables to promote gut health:

- Kale and spinach: Add to salads or use in smoothies.
- Broccoli: Include as a side dish or in stir-fries.
- Carrots: Grate into salads or eat as snacks.
- Berries: Blend into smoothies or eat fresh.

Consume a Mix of Fermented Foods Regularly

Fermented products are rich in live bacteria that support a balanced and healthy gut microbiome. These foods help maintain good levels of probiotic bacteria, reinforcing the existing beneficial microbial community.

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Summary

Consume a variety of fermented foods at least three times per week:

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- Sauerkraut and kimchi: Use as side dishes or toppings for your meals.
- Kombucha: Drink as a refreshing beverage.
- Miso: Add to soups and sauces
- Yogurt and kefir: Incorporate these into your breakfast routines





- Kombucha: Drink as a refreshing beverage.
- Fermented products are rich in live bacteria that support a balanced and healthy gut microbiome. These foods help maintain good levels of probiotic bacteria, reinforcing the existing beneficial microbial community.

(i) Please note

The detection of a microorganism by this test does not mean that it is a disease. Similarly, failure to detect a microorganism by this test does not exclude the presence of a disease-causing microorganism. Other organisms may also be present that are not detected by this test. This test is not a replacement for established methods for identifying microorganisms or their antimicrobial susceptibility profile.

The analyzed data is examined using special phylogenetic analysis algorithms to produce precise results on the basis of which your microbiome report is created . becomes. The latest scientific findings, bioinformatics excellence and AI-supported algorithms are used for this purpose. These machine learning algorithms are used, with the highest standards of data protection and data security, in the chapters on gut health and gut-body interaction (excluding inflammatory potentials) to determine the propensity of the microbiome profile of a sample to the profile of samples from individuals with specific characteristics . to determine. The recipe images and the summary in the "Recommendations" chapter were created using AI.

Biome Diagnostics GmbH assumes no liability for health decisions made on the basis of the test results.{{newline . }}

About [name]

The intestinal microbiome consists of 95% intestinal bacteria. These bacteria determine how you feel and also how healthy you are. They train our immune system from birth and have a profound influence on the development of many serious diseases such as irritable bowel syndrome, leaky gut syndrome, diabetes, obesity, Parkinson's or even colon cancer.

The myBioma intestinal microbiome analysis is that . Lifestyle product from Biome Diagnostics GmbH, which creates the myBioma microbiome report using the most modern methods, intelligent algorithms and the latest scientific publications. The myBioma analysis is the only double-certified product in the world according to ISO 13485 and ISO 9001 in the microbiome sector, which speaks for the quality of the analysis. In order to ensure the safety of the product, Biome Diagnostics GmbH has a quality management system that meets the relevant requirements and optimizes processes to the extent that risks and errors are avoided or. be minimized as much as possible. ISO 13485 regulates the requirements for quality management systems for producers of medical devices, thus ensuring high standards for the development, manufacture and marketing of medical devices. ISO 9001 also ensures that continuous product improvements and product assurance measures are taken..

The innovation of the myBioma analysis lies in the unique combination of next-generation DNA sequencing (NGS) with a . growing knowledge database about the interactions of the microbiome with the human organism.

The intestinal microbiome consists of 95% intestinal bacteria. These bacteria determine how you feel and also how healthy you are. They train our immune system from birth and have a profound influence on the development of many serious diseases such as irritable bowel syndrome, leaky gut syndrome, diabetes, obesity, Parkinson's or even colon cancer.

The myBioma intestinal microbiome analysis is that . Lifestyle product from Biome Diagnostics GmbH, which creates the myBioma microbiome report using the most modern methods, intelligent algorithms and the latest scientific publications. The myBioma analysis is the only double-certified product in the world according to ISO 13485 and ISO 9001 in the microbiome sector, which speaks for the quality of the analysis. In order to ensure the safety of the product, Biome Diagnostics GmbH has a quality management system that meets the relevant requirements and optimizes processes to the extent that risks and errors are avoided or. be minimized as much as possible. ISO 13485 regulates the requirements for quality management systems for producers of medical devices, thus ensuring high standards for the development, manufacture and marketing of medical devices. ISO 9001 also ensures that continuous product improvements and product assurance measures are taken..

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