

Hi Sara, here are your latest microbiome results

178271

We have received the results of your current microbiome analysis. This analysis is customized towards your health goals and it also includes additional research and science based findings and actions.

Goals

"I want to identify the root cause and alleviate my symptoms through foods and diets"

1. Constipation



Key findings

Metabolism

We identified 2 items to that might be associated with Constipation

Low Lactose Digestion

Low Fructose Digestion

Pathogens

We identified 2 key pathogens directly linked to your symptoms

High Clostridioides difficile

High Salmonella

Organisms

We identified 3 organisms that are associated with Constipation

Low Bifidobacterium

High Bacteroides

Normal Butyricoccus

Recommendations

Nutrition

We identified 2 dietary recommendations that may benefit your microbiome and symptoms

Include High-Fiber Diet

Include Prebiotic foods

Food triggers

We identified 2 low digestion metabolism items to avoid that may benefit your Constipation

Avoid Lactose

Avoid Fructose

Supplements

We identified 2 supplements that may benefit your microbiome balance

Include Butyrate supplements

Include Probiotic containing Bifidobacterium

[View goal analysis](#)

Other Findings

We have identified associations with the following markers, some of which you may already be aware of, while others share similar data points. These findings provide valuable insights into potential health considerations that require further exploration.

This analysis of your microbiome does not represent and should not be interpreted as a clinical diagnosis. If you are experiencing certain symptoms, please consult your doctor to discuss potential diagnosis and treatments.

CONDITIONS NUTRITION PATHOGENS SYMPTOMS

Irritable Bowel Syndrome



View analysis

Crohn's Disease



View analysis

Negative analysis

We did not find any associations for the conditions on this list

Ulcerative colitis



Increased intestinal permeability



Colorectal cancer



Clostridium difficile infection



Celiac disease



Obesity



Type 2 diabetes



Constipation

Jona association score

●●● **High**


"I want to identify the root cause and alleviate my symptoms through foods and diets"

Constipation refers to infrequent bowel movements or difficult passage of stools that persists for several weeks or longer.

Your microbiome plays an important role in GI mobility and constipation. There are important organisms, diets, and treatments that impact this process.


Actionable Insights

Here are the main recommendations that would help with your Constipation based on your unique Microbiome.

●●● Food  2


Avoid **Lactose** to improve *bloating and constipation*

The breakdown of the lactose in the colon, and the resulting acids and gases that are produced, cause the symptoms of lactose intolerance such as flatulence and bloating

●●○ Diet  2

Adopt **High-Fiber Diet** to increase number of stools

Fibre draws water into the bowel, so you could get dehydrated if you don't drink enough. Drinking plenty of fluid such as water helps to soften your poo and makes it easier to pass.

●●○ Supplement Not Sponsored  3

Adopt **probiotic containing *Bifidobacterium*** to increase *Bifidobacterium* levels

Bifidobacterium produces short-chain fatty acids that help regulate intestinal transit time. Lower levels are linked to constipation and cause abdominal discomfort.

Organisms

[View all](#)

We identified **10 organisms** that are associated to **Constipation** based on the latest scientific literature. These organisms have important functions in your gut and may impact **Constipation**. The organisms are ranked by highest associations to the lowest based on latest scientific literature.

Bifidobacterium

📄 🔖 4

Produces short-chain fatty acids that help regulate intestinal transit time.

- Lower levels are linked to constipation.
- Your level is lower than a normal range.



Bacteroides

📄 🔖 2

Produces short-chain fatty acids that help regulate intestinal transit time.

- Higher levels are linked to constipation.
- Your level is higher than a normal range.



Butyricoccus

📄 🔖 1

Organism function

- Lower levels are linked to constipation.
- Your level within normal range



Scientific evidence

[View all](#)

These are scientific research papers on how your unique gut microbiome organisms may be associated with Constipation. The papers are ranked by highest quality to lowest using our proprietary quality score

...**nature**

The Prebiotic Effects of Oats on Blood Lipids, Gut Microbiota, and Short-Chain Fatty Acids in Mildly Hypercholesterolemic Subjects Compared With Rice: A Randomized, Controlled Trial

- This paper links to 3 of the key organisms you have an imbalance with *Akkermansia muciniphila*, *Bifidobacterium*, and *Faecalibacterium prausnitzii*.
- It suggests that prebiotic activity of oats to modulate gut microbiome could contribute towards its cholesterol-lowering effect.
- You should increase your Prebiotic Foods intake to increase *Bifidobacterium* and *Faecalibacterium prausnitzii* levels

[Tell me more about this paper](#)[Let's make a plan](#)...**Science**

Crosstalk among intestinal barrier, gut microbiota and serum metabolome after a polyphenol-rich diet in older subjects with "leaky gut": The MaPLE trial

- This paper links to 4 of the key organisms you have an imbalance with *Akkermansia muciniphila*, *Roseburia*, *Bifidobacterium*, and *Faecalibacterium prausnitzii*.
- It suggests that prebiotic activity of oats to modulate gut microbiome could contribute towards its cholesterol-lowering effect.
- You should adopt a High fiber diet to increase *Roseburia* and *Faecalibacterium prausnitzii* levels



Relevant Findings

[View all](#)

We also found other conditions that are associated with Constipation and are directly associated with your organisms levels.



 3

Irritable Bowel Syndrome

IBS is a functional gastrointestinal disorder characterized by altered bowel habits without any underlying structural abnormalities.

- Your *Faecalibacterium prausnitzii* level could be affecting



[View analysts](#)



 4

Low Lactose Digestion

The reduced ability to digest milk sugars, due to insufficient amounts of the gut enzyme called lactase

- Your *Bifidobacterium longum* level could be affecting

[View analysis](#)

All related literature

[Collapse all](#)

These are scientific research papers on how your unique gut microbiome organisms may be associated with Constipation. The papers are ranked by highest quality to lowest using our proprietary quality score

Gut microbiota modulation with long-chain corn bran arabinoxylan in adults with overweight and obesity is linked to an individualized temporal increase in fecal propionate

[nature](#)



Stool consistency is strongly associated with gut microbiota richness and composition, enterotypes and bacterial growth rates.

[Science](#)



Association between Depression, Anxiety Symptoms and Gut Microbiota in Chinese Elderly with Functional Constipation.

[BMJ](#) journal



Abnormal bile acid metabolism is an important feature of gut microbiota and fecal metabolites in patients with slow transit constipation.

[GutMicrobiome](#)



All Organisms

Sort: A-Z 

[View all](#)

| Organism | Min | Your level | Max |
|--|-----|------------|---|
| <i>Bifidobacterium</i> Produces short-chain fatty acids that help regulate intestinal transit time. | 0 | 20% | 100%  |
| <i>Verrucomicrobiota</i> | 0 | 58% | 100%  |
| <i>Bacteroides</i> | 0 | 82% | 100%  |
| <i>Escherichia</i> | 0 | 56% | 100%  |
| <i>Butyricoccus</i> | 0 | 33% | 100%  |
| <i>Shigella</i> | 0 | 44% | 100%  |
| <i>Thermodesulfobacteriota</i> | 0 | 52% | 100%  |
| <i>Sutterella</i> | 0 | 80% | 100%  |
| <i>Oscillospiraceae</i> | 0 | 23% | 100%  |
| <i>Prevotella</i> | 0 | 44% | 100%  |
| <i>Organism</i> | 0 | 14% | 100%  |

Low Lactose Digestion

Jona association score

●●● High

"I want to identify the root cause and alleviate my symptoms through foods and diets"


Lactose is a disaccharide sugar found in dairy products like milk, yogurt, and soft cheeses.

Bifidobacterium species are known to produce lactase, the enzyme responsible for breaking down lactose into absorbable sugars, glucose, and galactose.

Individuals with lactose intolerance have reduced or deficient lactase activity, leading to difficulty digesting lactose. When lactose reaches the large intestine without being fully digested in the small intestine, gut bacteria can ferment it, resulting in gas production and symptoms like bloating, gas, and abdominal pain.


Actionable Insights

While we did not find any direct associations with scientific studies, these are the main recommendations that would help with your symptoms.

●●● Food sensitivity  2


Avoid Lactose consumption

The breakdown of the lactose in the colon, and the resulting acids and gases that are produced, cause the symptoms of lactose intolerance such as flatulence and bloating

●●● Supplement  2

Adopt Bifidobacteria probiotic

Prebiotic foods can help alleviate constipation by adding bulk to stool and promoting regular bowel movements.

●●● Supplement  2

Adopt Lactobacillus probiotic

Fibre draws water into the bowel, so you could get dehydrated if you don't drink enough. Drinking plenty of fluid such as water helps to soften your poo and makes it easier to pass.

Foods contain Lactose

Here are some dairy products that may contain lactose



Milk
All types of cow's milk, goat's milk, and buffalo milk

 3 



Cheese
Especially soft cheeses, such as cream cheese, cottage cheese, mozzarella, and ricotta

 2 



Yogurt
Most yogurts except Greek yogurt which has lower lactose levels.

 2 



Butter
Butter made from cow's milk contains lactose, though aged, cultured, or clarified forms contain negligible amounts.

 1 



ice cream, frozen yogurt, and dairy-based sherbet
Most commercial ice creams contain lactose unless labeled dairy-free or made with an alternative milk.

 3 

Potential symptoms

[View all](#)

These symptoms are normally associated with ...

 ...
Diarrhea



 ...
Abdominal pain



...
Gas



 ...
Constipation



Scientific evidence

[View all](#)

There are some papers on avoiding lactose may change organisms in your gut, and impact your overall gut health, and symptoms

...

nature

The Prebiotic Effects of Oats on Blood Lipids, Gut Microbiota, and Short-Chain Fatty Acids in Mildly Hypercholesterolemic Subjects Compared With Rice: A Randomized, Controlled Trial

- This paper links to 3 of the key organisms you have an imbalance with *Akkermansia muciniphila*, *Bifidobacterium*, and *Faecalibacterium prausnitzii*.
- It suggests that prebiotic activity of oats to modulate gut microbiome could contribute towards its cholesterol-lowering effect.
- You should **<action>** your **<item>** intake to **<benefit>**



Tell me more about this paper

...

nature

Crosstalk among intestinal barrier, gut microbiota and serum metabolome after a polyphenol-rich diet in older subjects with "leaky gut": The MaPLE trial

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Key Organisms

[View all](#)

We identified 3 main organisms that are out of range that might be causing your symptoms. These organisms have important functions towards bowel movement balance and could be, individually and collectively, affecting this process.

Faecalibacterium prausnitzii 4

Produces short-chain fatty acids that help regulate intestinal transit time.

- Lower levels are linked to Lactose digestion.
- Your level is lower than a normal range.
- You need to increase abundances

0.02

Lactobacillus gasseri 2

Produces short-chain fatty acids that help regulate intestinal transit time.

- Lower levels are linked to Lactose digestion.
- Your level is lower than a normal range.
- You need to increase abundances

4.68

Faecalibacterium 2

Produces short-chain fatty acids that help regulate intestinal transit time.

- Lower levels are linked to Lactose digestion.
- Your level is higher than a normal range.
- You need to increase abundances

4.68

Over and Under abundant Organisms

View all

| Over Abundant Organism | Min | Your level | Max | Unit |
|------------------------------|-------|------------|-------|------|
| <i>Lactobacillus gasseri</i> | 00.01 | 4.68 | 100 % | Unit |
| <i>Faecalibacterium</i> | 00.01 | 4.68 | 100 % | Unit |

| Under Abundant Organism | Min | Your level | Max | Unit |
|-------------------------------------|-------|------------|-------|------|
| <i>Faecalibacterium prausnitzii</i> | 00.01 | 0.05 | 100 % | Unit |
| <i>Enterobacter cloacae</i> | 00.01 | 0.00 | 100 % | Unit |
| <i>Clostridium paraputrificum</i> | 00.01 | 0.00 | 100 % | Unit |

Irritable Bowel Syndrome

Jona association score

●●● High

"I want to identify the root cause and alleviate my symptoms through foods and diets"

IBS is a functional gastrointestinal disorder characterized by chronic abdominal pain, bloating, and altered bowel habits (constipation, diarrhea, or a mix of both) without any underlying structural abnormalities.

Actionable Insights

Here are the main recommendations that would help with your Irritable Bowel Syndrome based on your unique Microbiome.

... Tag 2

Adopt High-Fiber Diet

to increase number of stools

Increased short-chain fatty acid production - Fiber fermentation by gut bacteria produces beneficial SCFAs like butyrate which provide energy to colonocytes, improve gut barrier function, and reduce inflammation.

... Tag 2

Increase Hydration

to soften stool

Fibre draws water into the bowel, so you could get dehydrated if you don't drink enough. Drinking plenty of fluid such as water helps to soften your poo and makes it easier to pass.

Potential symptoms

View all

These symptoms are normally associated with ...

✓ ... 3

Constipation

✓ ... 2

Urgency to have a bowel movement

✓ ... 3

Bloating and Gas

... 1

Altered bowel habits

Organisms

[View all](#)

We identified **10 organisms** that are associated to **Constipation** based on the latest scientific literature. These organisms have important functions in your gut and may impact **Constipation**. The organisms are ranked by highest associations to the lowest based on latest scientific literature.

Bifidobacterium 4

Produces short-chain fatty acids that help regulate intestinal transit time.

- Lower levels are linked to constipation.
- Your level is lower than a normal range.



Bacteroides 2

Produces short-chain fatty acids that help regulate intestinal transit time.

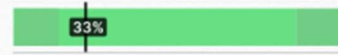
- Higher levels are linked to constipation.
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Butyricoccus 1

Organism function

- Lower levels are linked to constipation.
- Your level within normal range



Scientific evidence

[View all](#)

There are some papers on avoiding lactose may change organisms in your gut, and impact your overall gut health, and symptoms

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nature

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[Tell me more about this paper](#)

[Let's make a plan](#)


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nature

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- You should <action> your <item> intake to <benefit>




All related literature 

[Collapse all](#)

These are some papers on how your unique gut microbiome organisms may be associated with Constipation

- Limited prolonged effects of rifaximin treatment on irritable bowel syndrome-related differences in the fecal microbiome and metabolome.**
nature 
- Gut microbiome signatures reflect different subtypes of irritable bowel syndrome.**
Science 
- An irritable bowel syndrome subtype defined by species-specific alterations in faecal microbiota.**
BMJ Journal 
- Methanogens and Hydrogen Sulfide Producing Bacteria Guide Distinct Gut Microbe Profiles and Irritable Bowel Syndrome Subtypes.**
Gastroenterology 

All Organisms 

Sort: A-Z 

[View all](#)

| Organism | Min | Your level | Max |
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Avoid Lactose

Jona association score

●●● **High**

"I want to identify the root cause and alleviate my symptoms through foods and diets"

If you are lactose intolerant, you may experience symptoms after eating dairy products and some prepared foods that contain dairy. Some dairy products have less lactose than others.

The lactose-free diet is a common eating pattern that eliminates or restricts lactose, a type of sugar in milk.

Although most people are aware that milk and dairy products typically contain lactose, there are many other hidden sources of this sugar in the food supply.

Benefits and impact

●●● 2

Improve Constipation

The breakdown of the lactose in the colon, and the resulting acids and gases that are produced, cause the symptoms of lactose intolerance such as flatulence and bloating

●●● 2

Decrease Gas and Bloating

Unabsorbed lactose gets fermented by gut bacteria, producing gas, bloating, and discomfort. Avoidance decreases excess gas production.

●●● 2

Decrease Abdominal Pain

The accumulation of fermentation byproducts and fluid distention causes painful cramping. Avoiding lactose prevents this.

Action plan

Duration 2

Continue permanently to avoid lactose to reduce symptoms.

Retesting 2

Get a microbiome test after 3 months and before 6 months to assess if flares and symptoms have decreased.

Foods to avoid

Although certain dairy products contain low amounts of lactose and can be tolerated by many with lactose intolerance, people with a milk allergy or those avoiding lactose for other reasons may still want to eliminate these ingredients from their diet.

Here are some dairy products that you may want to avoid as part of a lactose-free diet:



Milk

All types of cow's milk, goat's milk, and buffalo milk

3 1



Cheese

Especially soft cheeses, such as cream cheese, cottage cheese, mozzarella, and ricotta

2 1



Yogurt

Most yogurts except Greek yogurt which has lower lactose levels.

2 1



Butter

Butter made from cow's milk contains lactose, though aged, cultured, or clarified forms contain negligible amounts.

1 1



Ice cream, frozen yogurt, and dairy-based sherbet

Most commercial ice creams contain lactose unless labeled dairy-free or made with an alternative milk.

3 1

Recommended foods

Many foods can be enjoyed as part of a healthy, lactose-free diet, including:



Nondairy Milks

lactose-free milk, rice milk, almond milk, oat milk, coconut milk, cashew milk, hemp milk

3 1



Lactose-free yogurts

Coconut yogurt, almond milk yogurt, soy yogurt, cashew yogurt

2 1

Scientific evidence

View all

There are some papers on avoiding lactose may change organisms in your gut, and impact your overall gut health, and symptoms

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nature

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...

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- You should <action> your <item> intake to <benefit>



Adopt Bifidobacteria probiotic

Jona association score

●●● **High**

"I want to identify the root cause and alleviate my symptoms through foods and diets"

Adopting a *Bifidobacteria* can help alleviate constipation by adding bulk to stool and promoting regular bowel movements.

Benefits and impact

... 2

Improve constipation

The breakdown of the lactose in the colon, and the resulting acids and gases that are produced, cause the symptoms of lactose intolerance such as flatulence and bloating

... 2

Improve Lactose digestion

Description on impact

... 2

Could Trigger Diarrhea

Description on impact

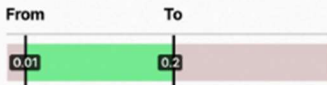
Bifidobacterium 4

Produces short-chain fatty acids that help regulate intestinal transit time.

- Lower levels are linked to constipation.

Impact

From To



| From | To |
|------|-----|
| 0.01 | 0.2 |

Action plan

Duration

- Take for at least 1-2 months to allow time for colonization and impact.
- Continue for a longer period for continued effects.

Retesting

Get a microbiome test after 3 months and before 6 months to assess if your *Bifidobacterium* levels have increased.

Product Selection

Look for strains with human research like *B. longum*, *B. breve*, *B. infantis*.

Allergies

- Generally safe but consult doctor if serious allergy.
- May rarely cause reactions in sensitive individuals.

Medical Conditions

- Use caution if immunocompromised or critically ill. Consult doctor for advice.
 - Start with low dose like 5 billion CFUs and gradually increase over 2-4 weeks as tolerated.
- Stick to dosage on label. More is not always better with probiotics.



Recommended foods

While there are plenty of supplements containing *Bifidobacteria*, we found a list of foods that would fit with your lifestyle and diet.



Kefir



Kefir is a fermented milk drink similar to a thin yogurt or ayran that is made from kefir grains, a specific type of mesophilic symbiotic culture

...  3 



Sauerkraut



is finely cut raw cabbage that has been fermented by various lactic acid bacteria

...  2 



Yogurt



Most yogurts except Greek yogurt which has lower lactose levels.

...  2 



Sourdough bread

Description

...  1 

Scientific evidence

[View all](#)

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