

Tile Legend



Broccoli You've been eating a lot of broccoli lately. This vegetable contains fermentable fibre and carbohydrates that feed *Methanobrevibacter smithii* and promote its growth in your digestive system. **Add an *M. smithii* to your microbiome. This methane-producing archaeon causes some extra gas in your digestive system. The smell is not pleasant, so all players behind you move one step back and all players in front of you move one step forward.**



High-fibre diet By adding more fibre to your diet, you've provided nutrition for certain beneficial bacteria in your gut. These bacteria, such as *Bifidobacterium*, thrive in a high-fibre environment. **Add two *Bifidobacterium* cards to your microbiome.**



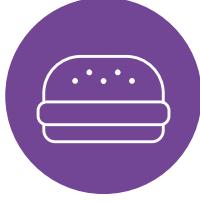
Kefir You've taken advantage of a significant discount on kefir at your local shop and added this probiotic-rich drink to your daily routine. Kefir contains several strains of beneficial bacteria, including *Lactobacillus*. **Add a *Lactobacillus* card to your microbiome.**



Onions You get lots of onions from your neighbour and eat them often. Onions contain prebiotics that stimulate the growth and activity of certain beneficial bacteria such as *Bifidobacteria*. **Add a *Bifidobacterium* card to your microbiome.**



Green tea You have replaced black tea with green tea. Green tea polyphenols may serve as a source of nutrition or substrate for *Akkermansia muciniphila*. **Add an *A. muciniphila* card to your microbiome.**



Fast food Due to time constraints, you've recently been relying heavily on fast food for your meals. These highly processed foods, high in sugar and saturated fat, have a negative effect on the microbiome by depriving beneficial microbes of nutrients. **Remove two beneficial Microbe cards from your microbiome.**



Soda You have been drinking a lot of soda instead of water in recent weeks. Soda consumption can potentially create an environment favourable to the growth of *Helicobacter pylori*. *H. pylori* may then compete with other microbes for resources and space in the stomach lining, potentially leading to a reduction in the prevalence of beneficial microbes. **Add two *Helicobacter pylori* to your microbiome and remove 2 beneficial Microbe cards.**



Sweets It's the holiday season and you're eating a lot of sugary foods. Excessive sugar consumption can cause inflammation in the gut, disrupting the delicate balance of the microbiome and reducing the number of beneficial species. **Remove one beneficial Microbe card from your microbiome.**



Salty snacks Lately, eating salty snacks has become a habit for you. Salty snacks often lack the essential nutrients needed to support the growth and maintenance of beneficial microbes, contributing to a decrease in their presence. **Remove one beneficial Microbe card from your microbiome.**



Poor sleep patterns While preparing for exams, you've got into the habit of sleeping just 5 hours a night for several weeks. Insufficient sleep disrupts the body's natural rhythms and can weaken the immune system, leading to a decline in beneficial microbes. **Remove two beneficial Microbe cards from your microbiome.**



Inactive lifestyle During the winter months, you spend more time indoors and do less physical activity. Regular exercise promotes the growth and maintenance of beneficial microbes in the gut. However, a reduction in physical activity creates a less favourable environment for them. **Remove one beneficial Microbe card from your microbiome.**



Exercise You've been cycling to school all semester instead of taking the bus. Regular physical activity has been linked to creating an environment that supports the growth of *Faecalibacterium prausnitzii* in your microbiome. **Add two *Faecalibacterium prausnitzii* cards to your microbiome.**



Dog You have adopted a dog from the shelter. Dogs bring a wide range of microorganisms into the home environment. Interaction with these microbes can introduce a wider variety of bacteria into the human microbiome, potentially increasing populations of beneficial bacteria such as *Lactobacillus* and *Bifidobacterium*. **Add a *Lactobacillus* card and a *Bifidobacterium* card to your microbiome.**



Travel

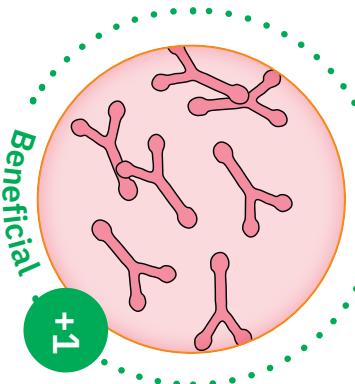
Draw one of the Travel cards to see where you are going.



Infection You have a sinus infection. **Roll to determine the cause.** If you roll 1-3, it is caused by *Haemophilus influenzae*, a bacterium typically resident in the upper respiratory tract, so you take a **Doctor card**. If you roll 4-6, it is just a cold caused by a virus, so you take a **Pharmacy card**.

Microbe card

Bifidobacterium

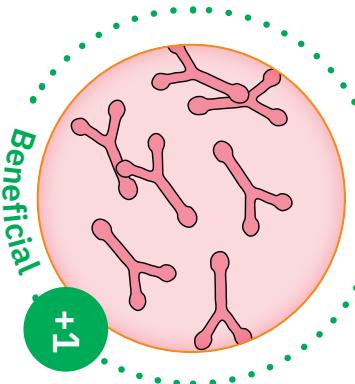


Bifidobacterium

Contributes to the breakdown of complex carbohydrates

Microbe card

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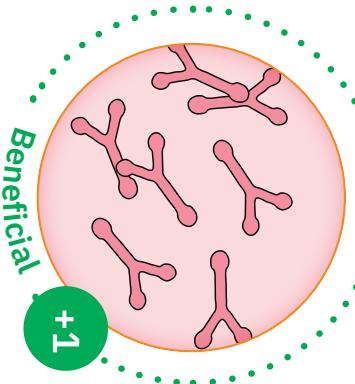


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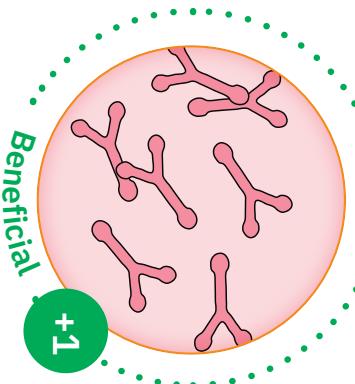


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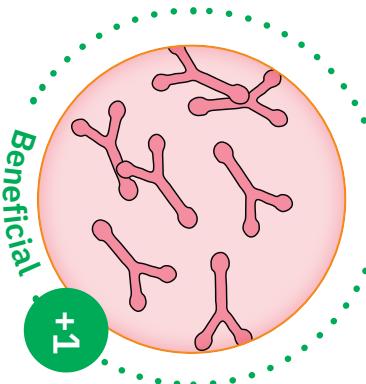
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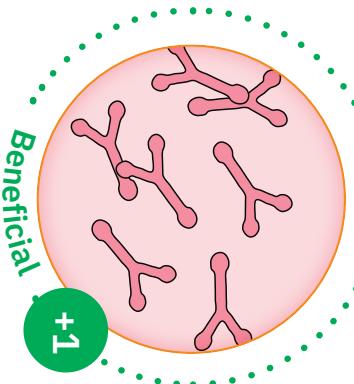
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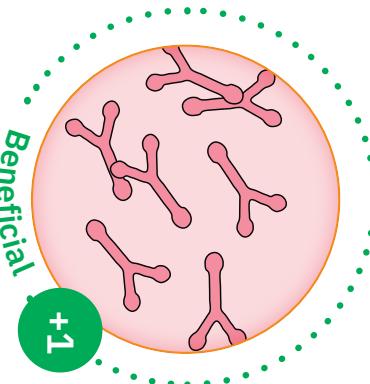
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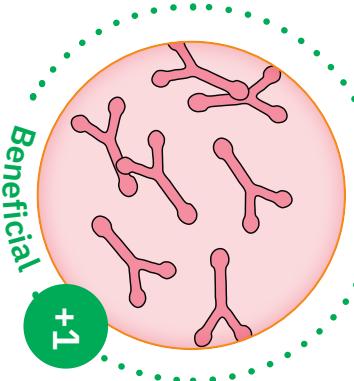
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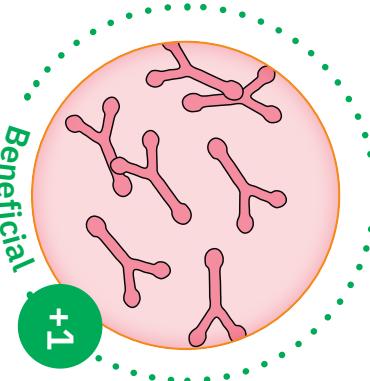
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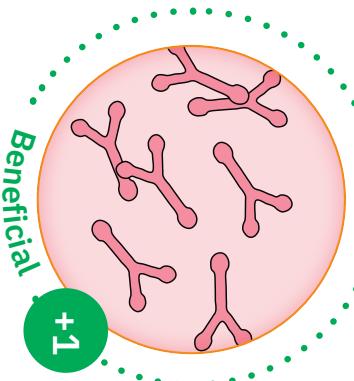
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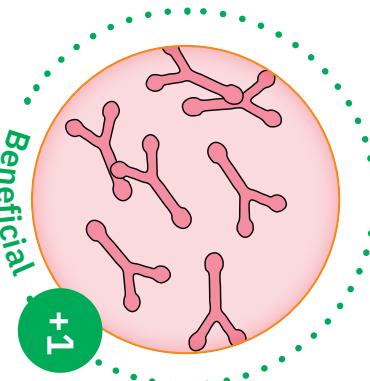
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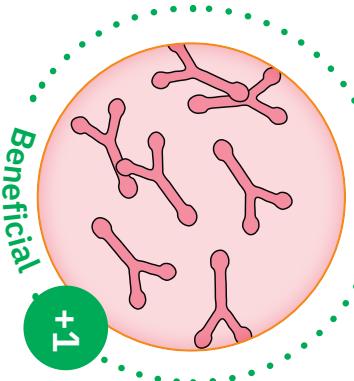
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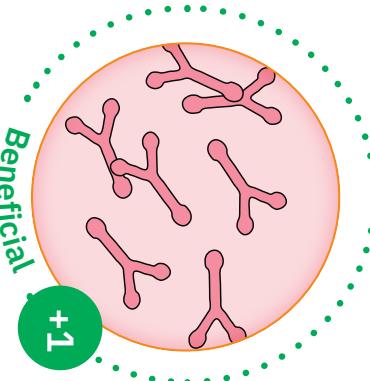
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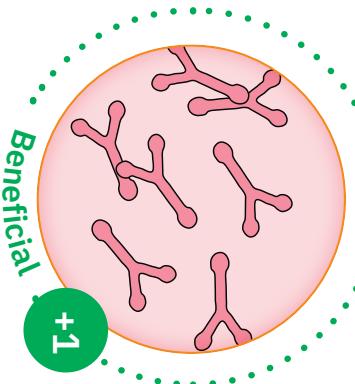
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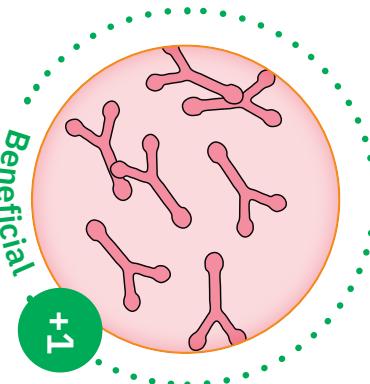
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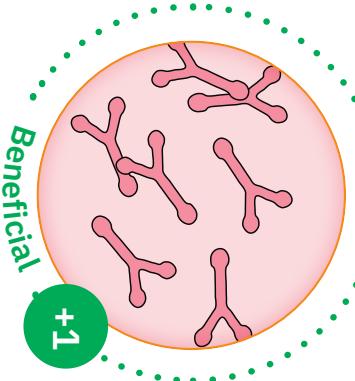
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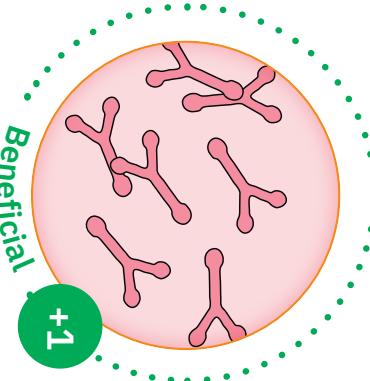
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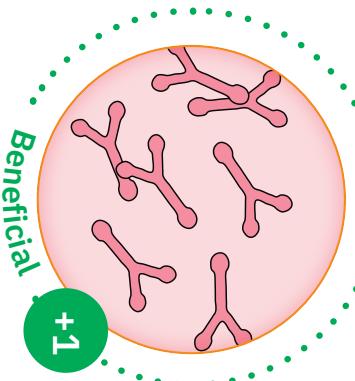
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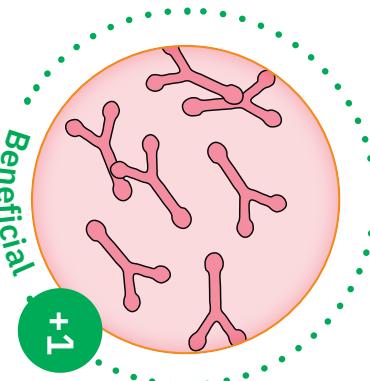
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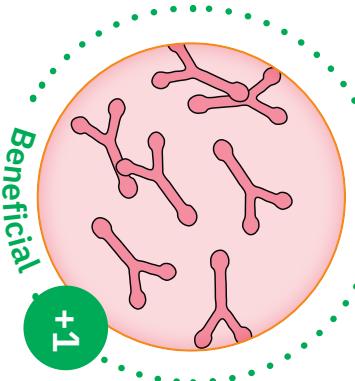
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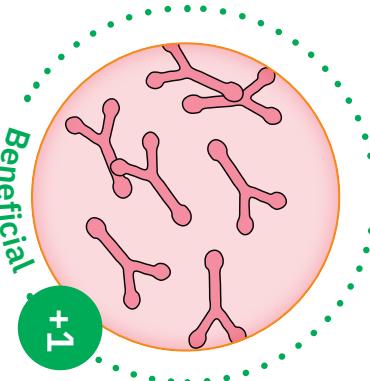
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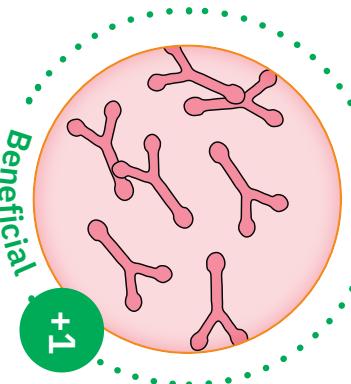
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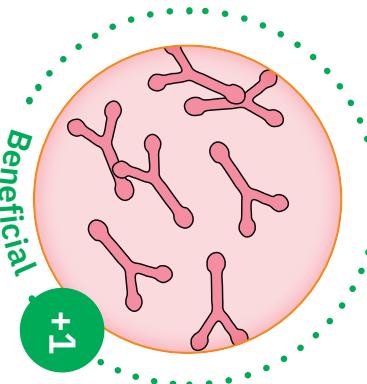
Microbe card

Bifidobacterium



Beneficial

+1



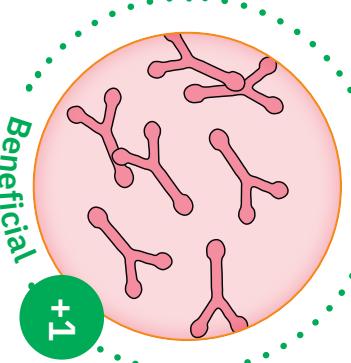
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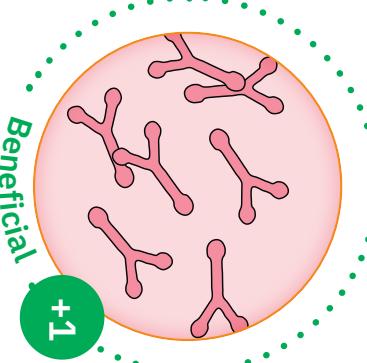
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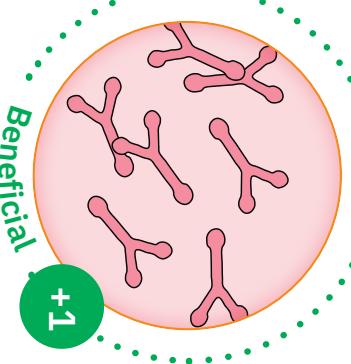
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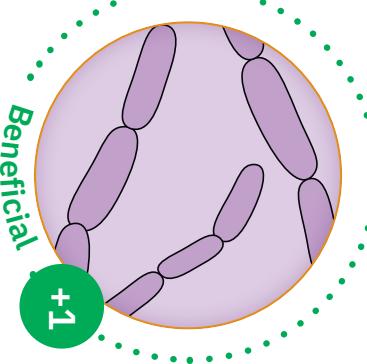
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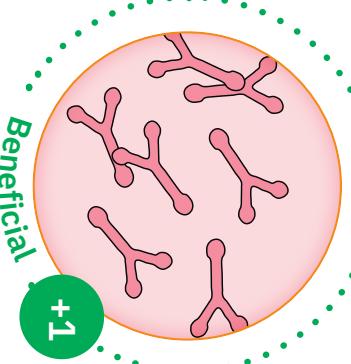
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Has anti-inflammatory
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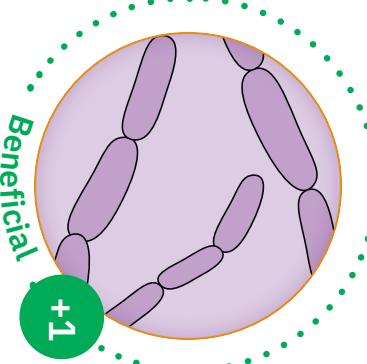
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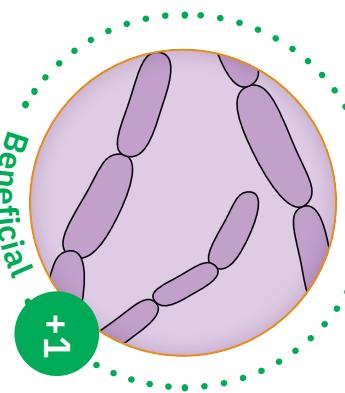
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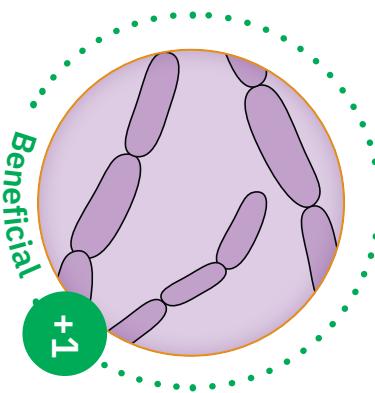
F. prausnitzii



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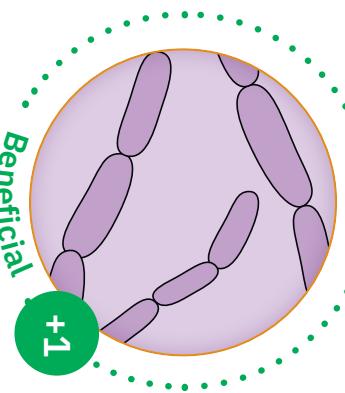
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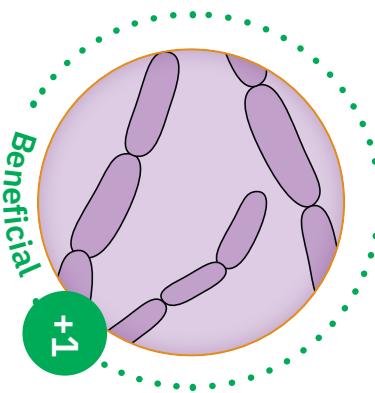
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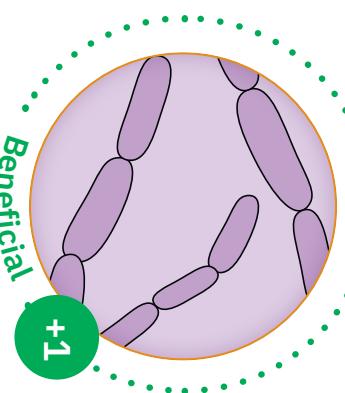
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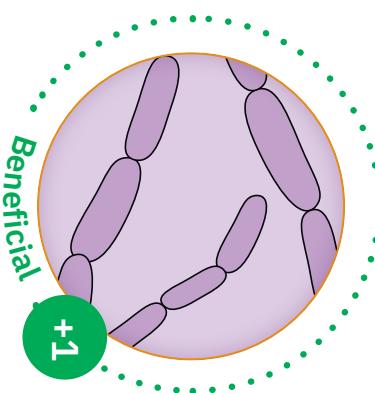
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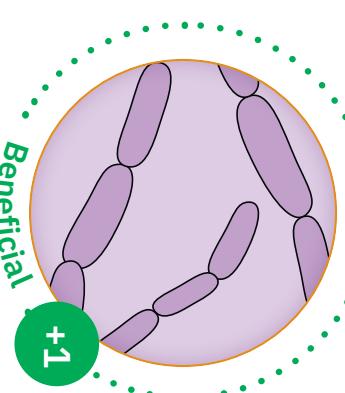
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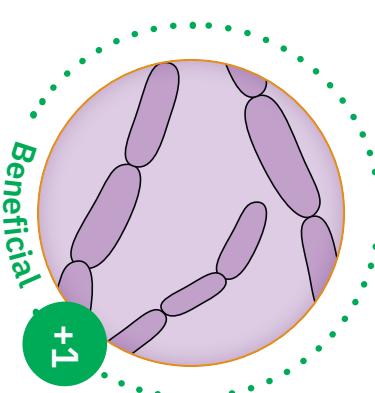
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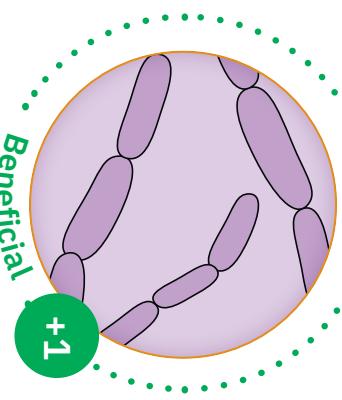
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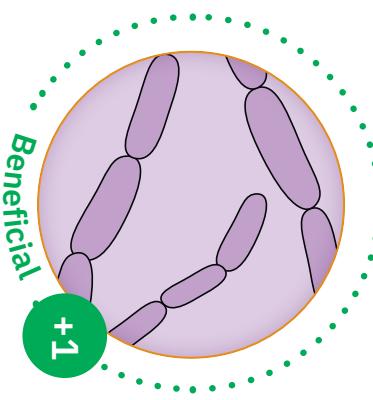
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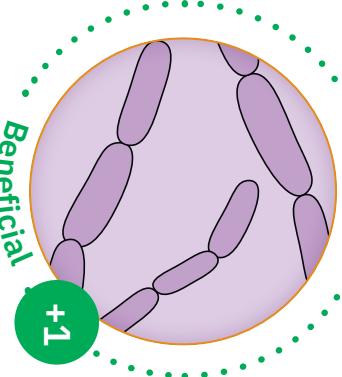
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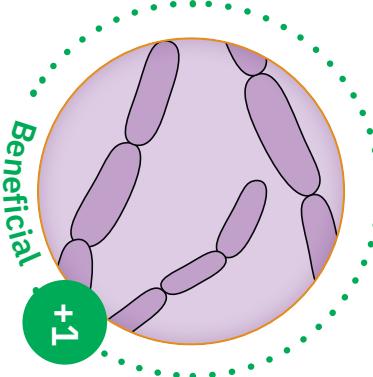
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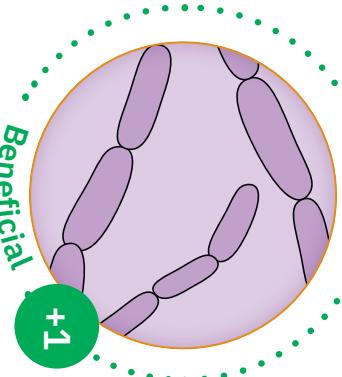
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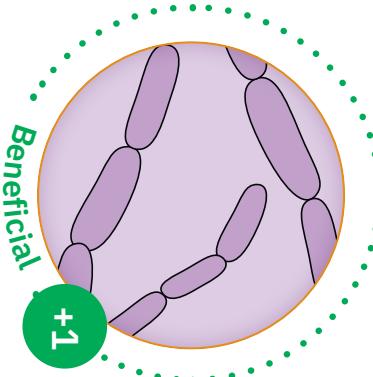
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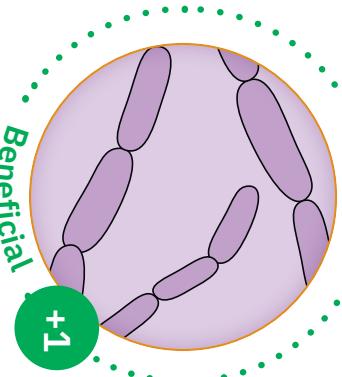
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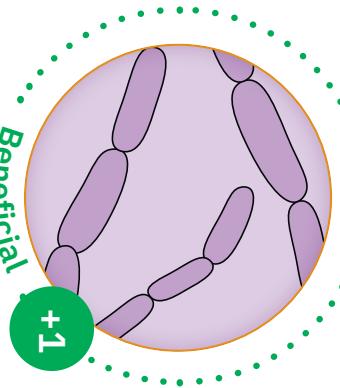
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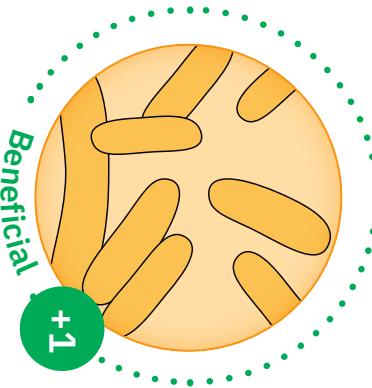
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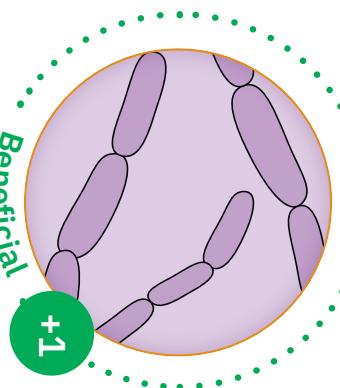
Lactobacillus



Contributes to the breakdown of complex carbohydrates

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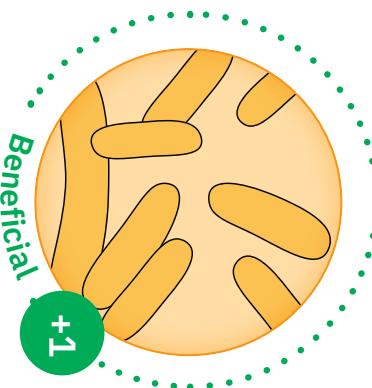
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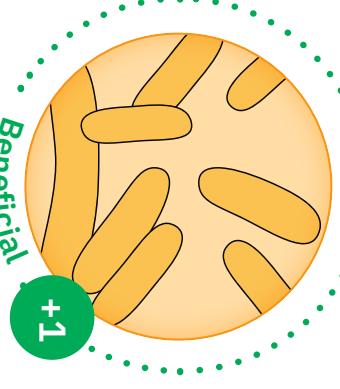
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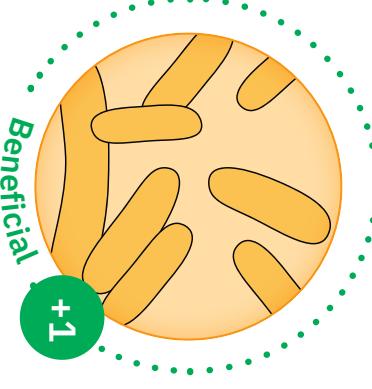
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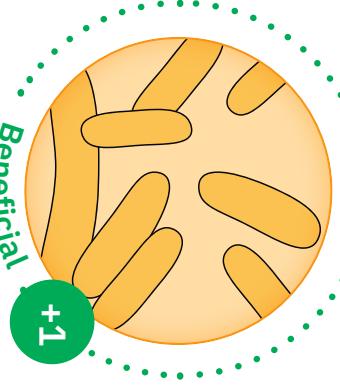
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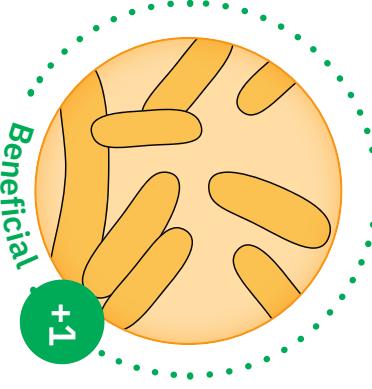
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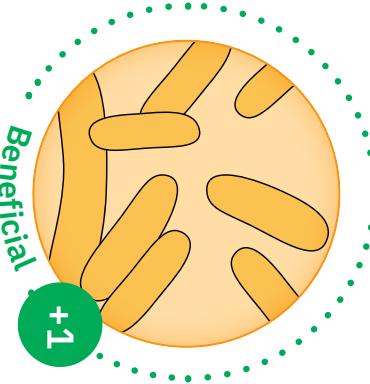
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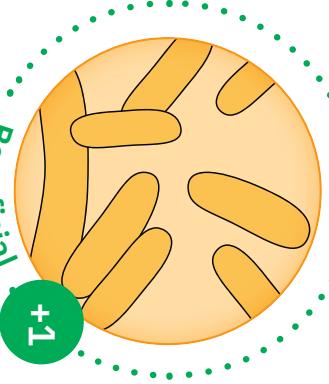
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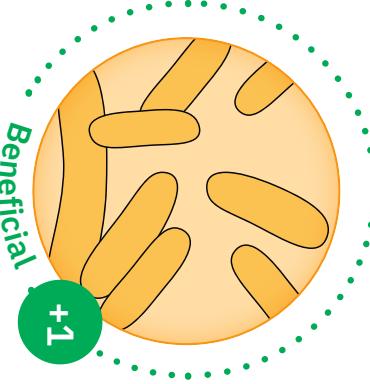
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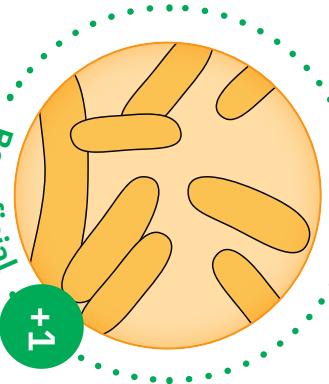
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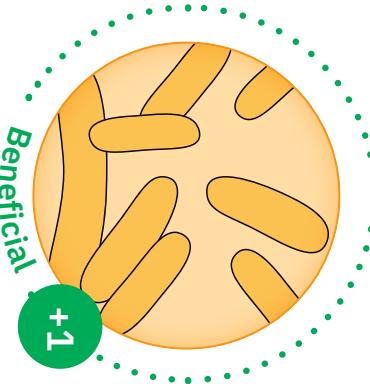
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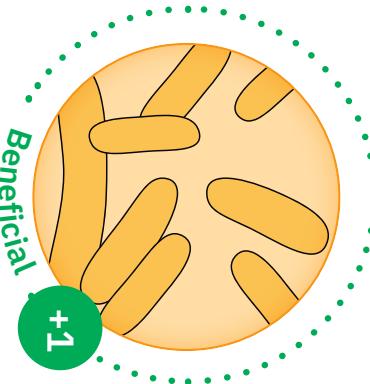
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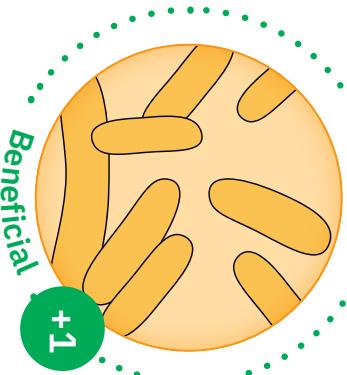
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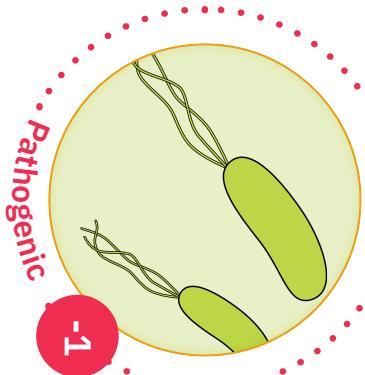
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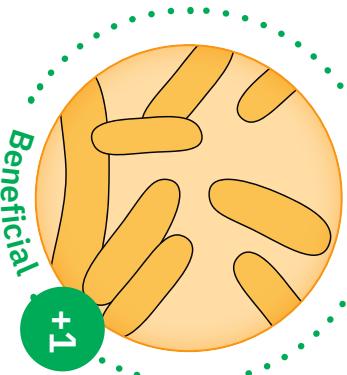
Helicobacter pylori



An overgrowth may lead to stomach infections and ulcers

Microbe card

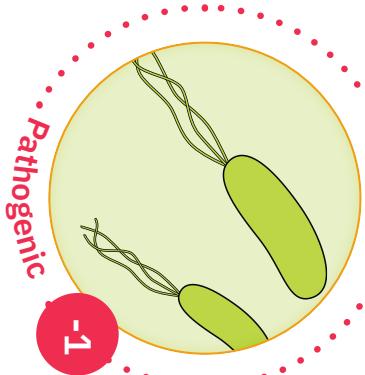
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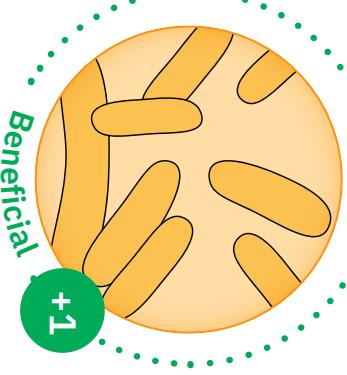
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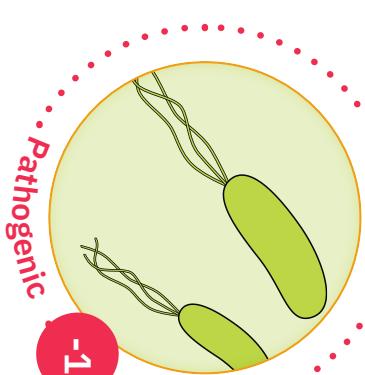
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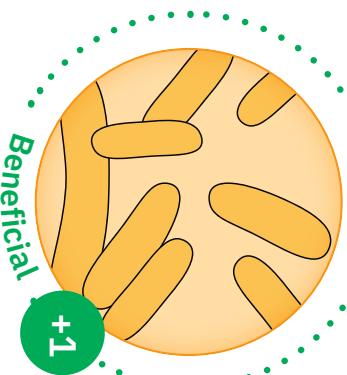
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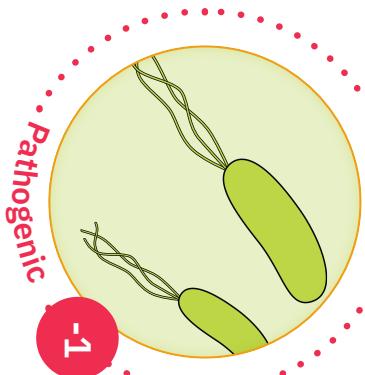
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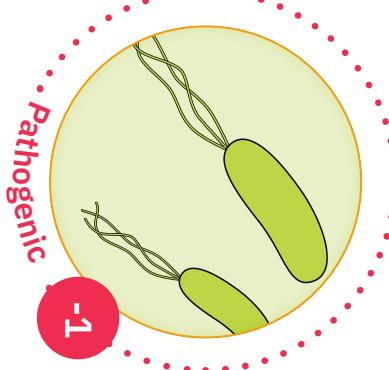
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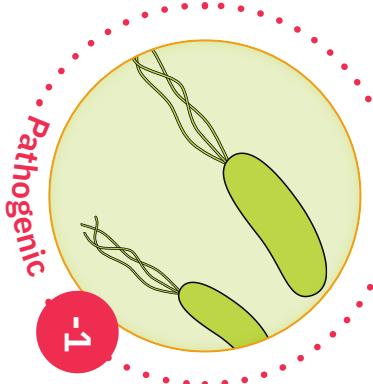
Helicobacter pylori



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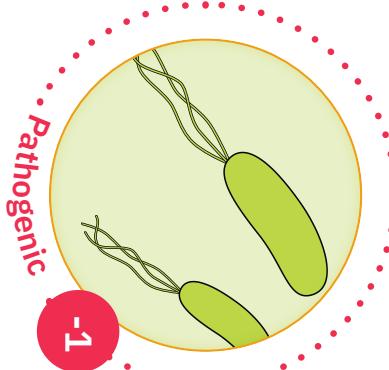
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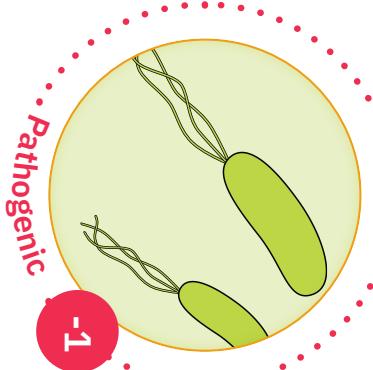
Helicobacter pylori



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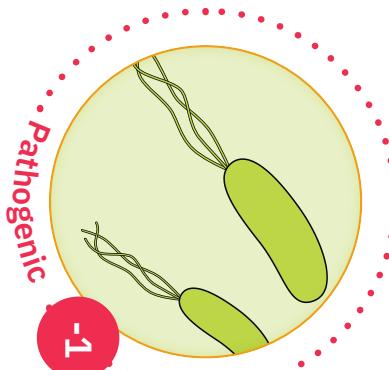
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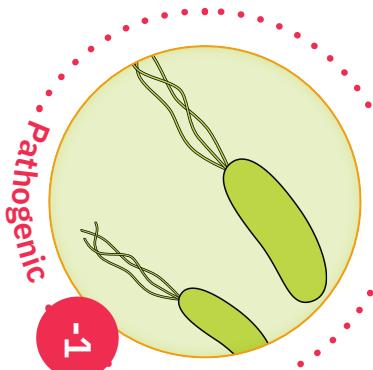
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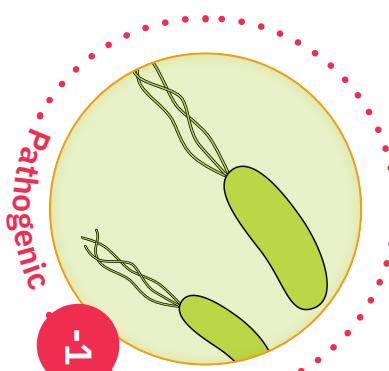
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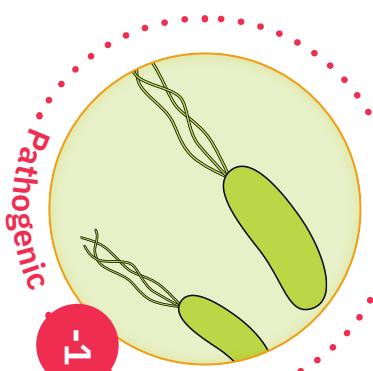
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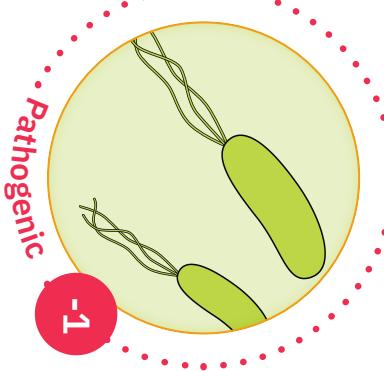
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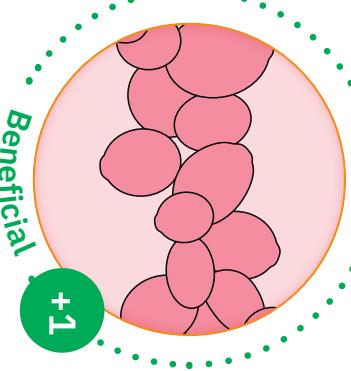
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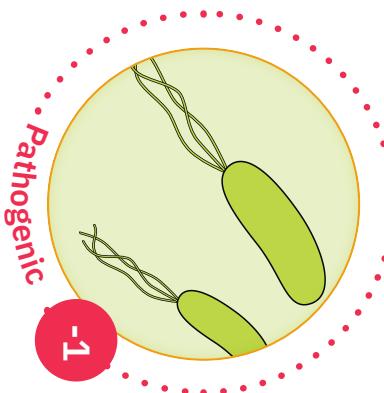
A. muciniphila



Maintains a healthy mucus layer and regulates inflammation

Microbe card

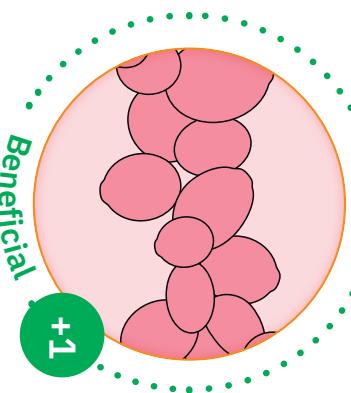
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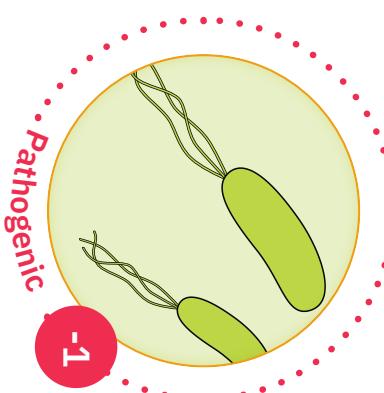
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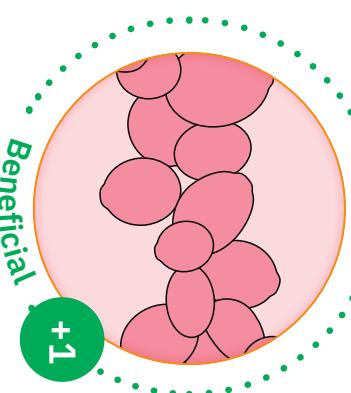
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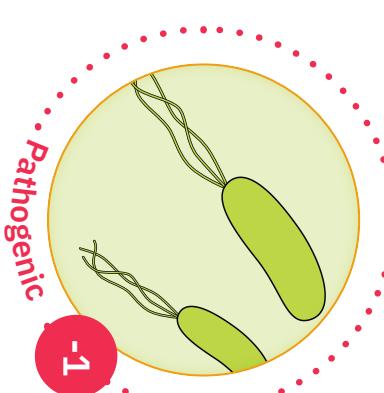
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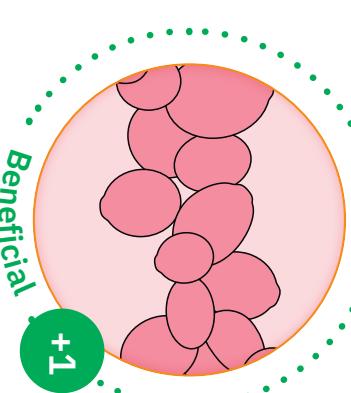
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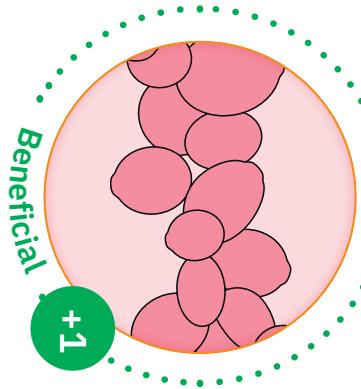
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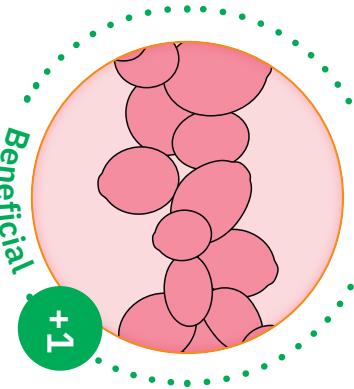
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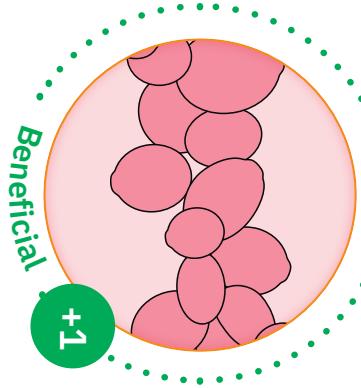
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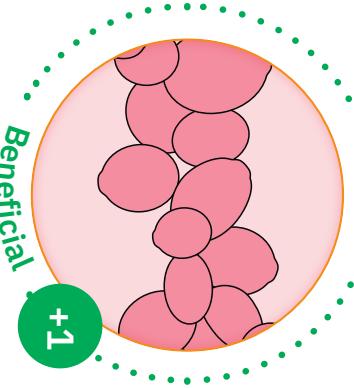
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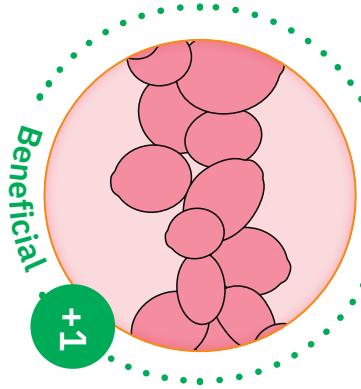
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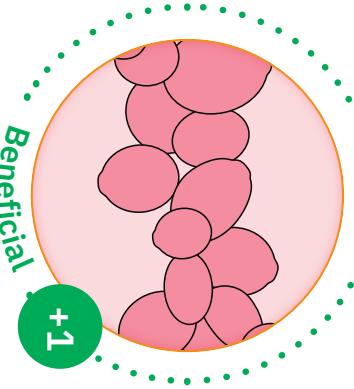
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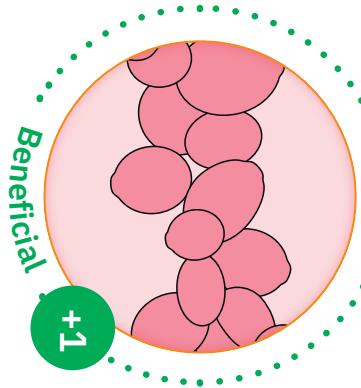
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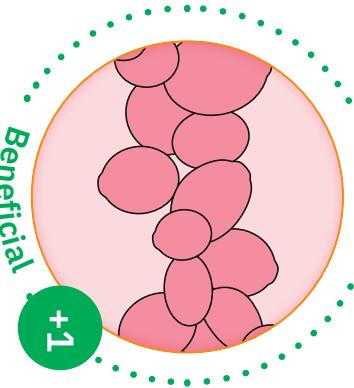
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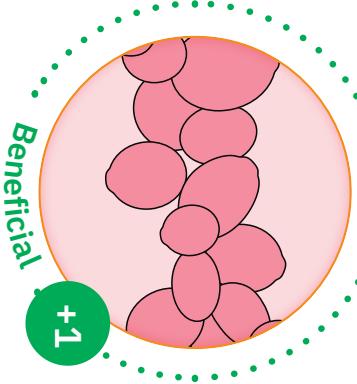
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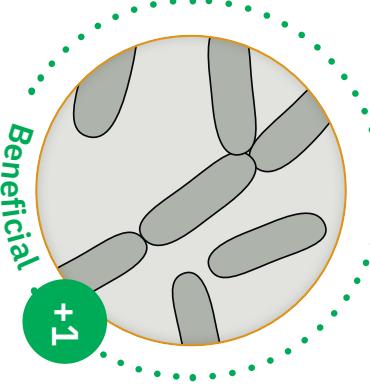
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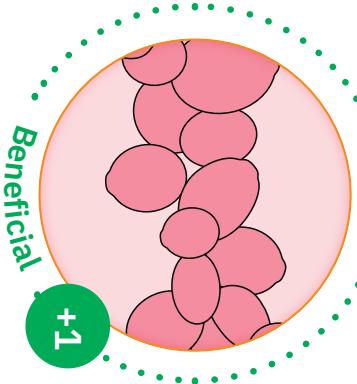
M. smithii



Vital for nutrient and calorie absorption

Microbe card

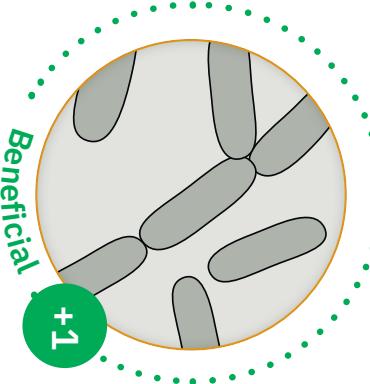
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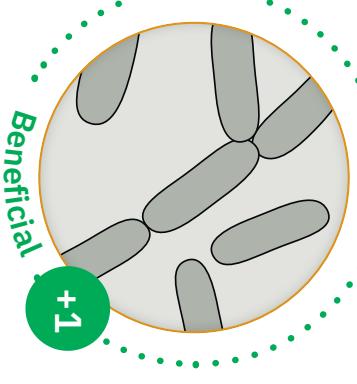
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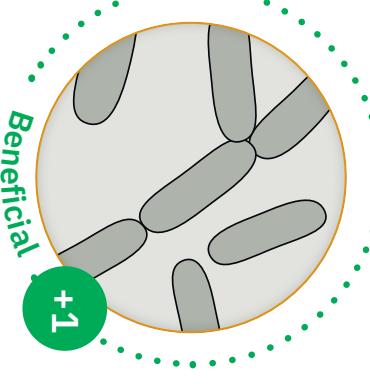
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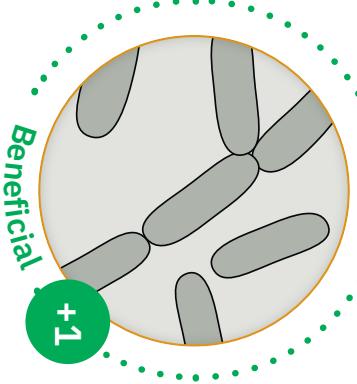
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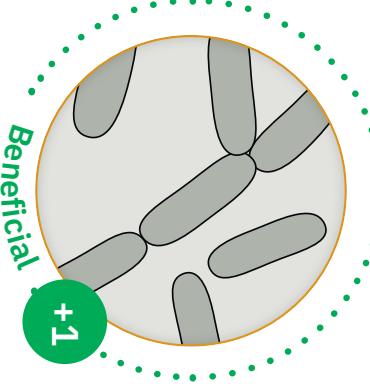
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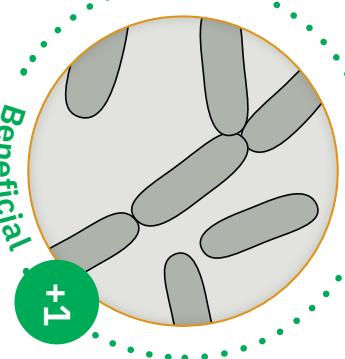
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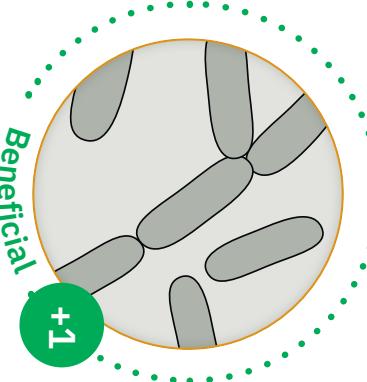
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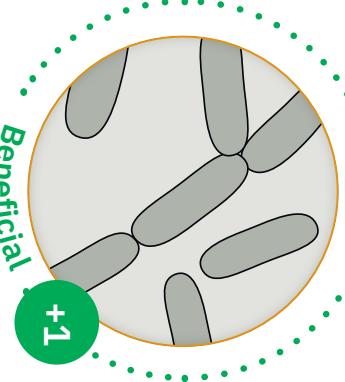
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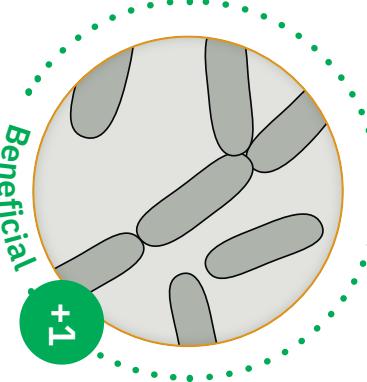
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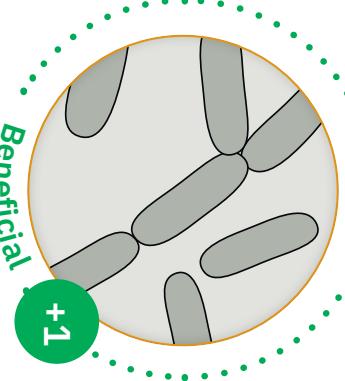
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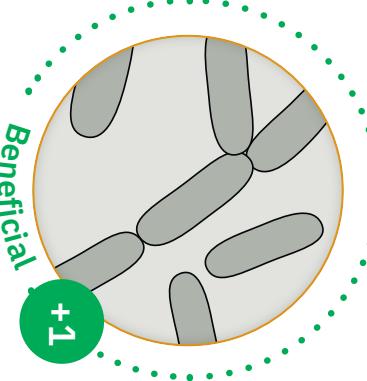
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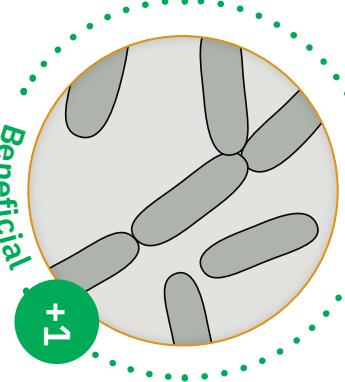
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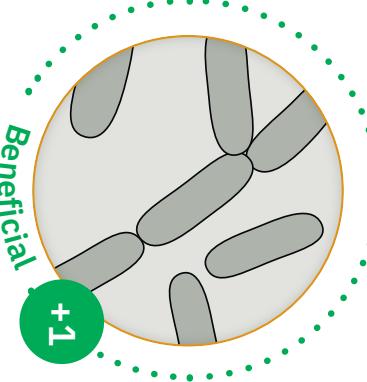
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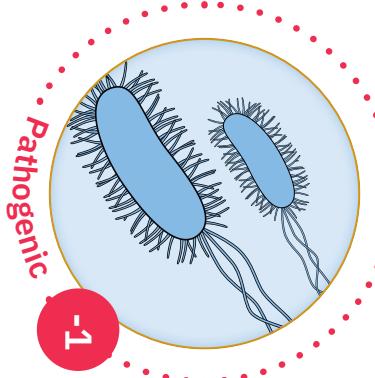
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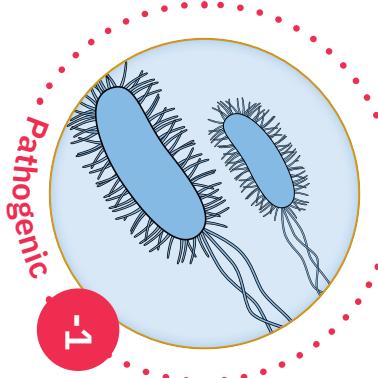
Escherichia coli



Some strains can lead to foodborne illnesses

Microbe card

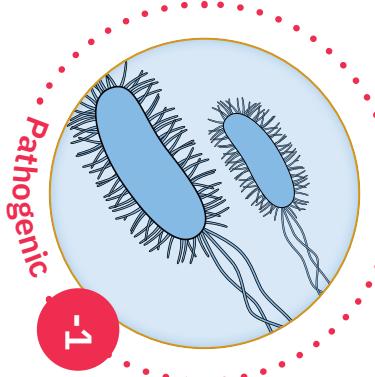
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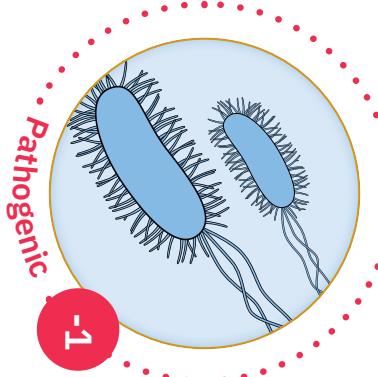
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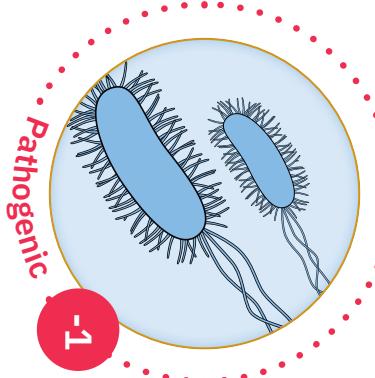
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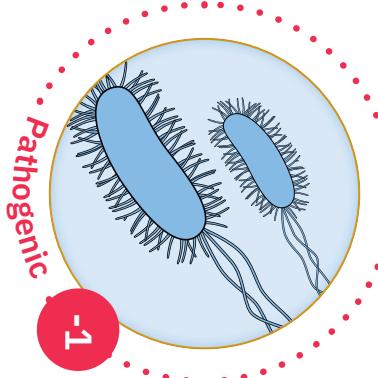
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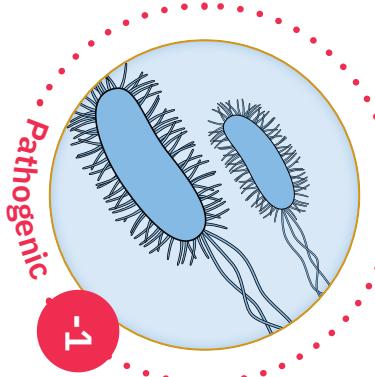
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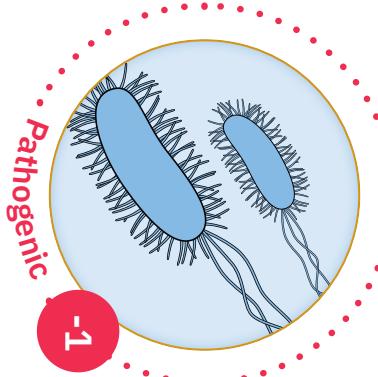
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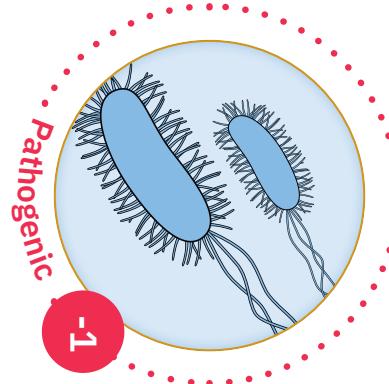
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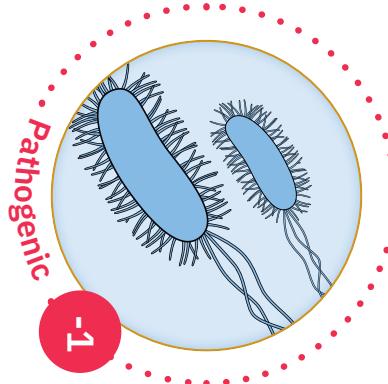
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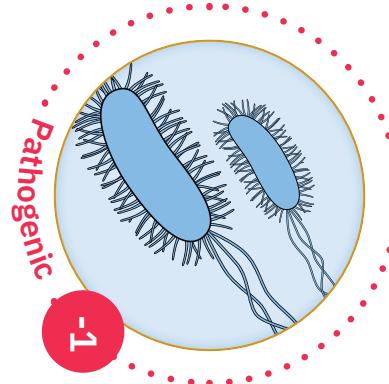
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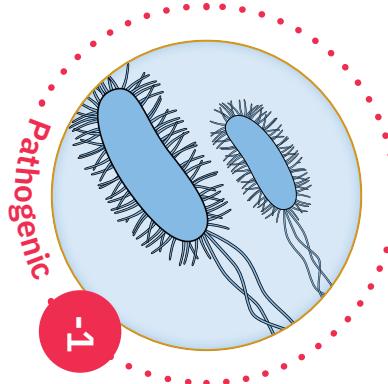
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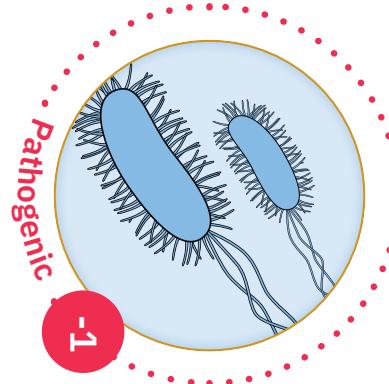
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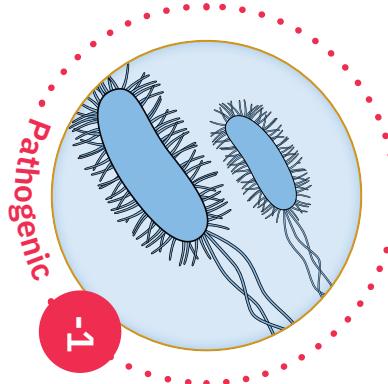
Escherichia coli



Some strains can lead to foodborne illnesses

Microbe card

Escherichia coli



Some strains can lead to foodborne illnesses



Function card

Doctor



Antibiotics prescribed by your doctor eliminate *Haemophilus influenzae* from your respiratory tract but also some beneficial gut bacteria.

Remove three beneficial Microbe cards from your gut. Roll to see if a probiotic is prescribed. If you roll a 6, add one *Lactobacillus* card to your envelope.



Function card

Pharmacy



You buy ibuprofen. It helps you with the pain, but it can decrease your microbiome diversity.

Take away one beneficial Microbe card from your microbiome.



Function card

Toilet



Add one *Escherichia coli* to your gut. You have diarrhea and need to stay in the toilet for a while.

You skip one turn.



Travel card

India



While exploring the colourful city of Mumbai, you had some street food and ate undercooked meat. You got an *Escherichia coli* infection that caused you diarrhoea.



Travel card

India



You visited a rural farm in the Himalayan foothills and used purification tablets to make the water safe to drink.



Travel card

Peru



You trekked through the Andes Mountains and drank water from a contaminated mountain stream. You got an *Escherichia coli* infection that caused you diarrhoea.



Travel card

Peru



You have explored the capital city of Lima with good hygiene practices.



Travel card

Egypt



You have toured the lively city of Cairo with good hygiene standards.



Travel card

Egypt



You visited the Nile Delta and drank water from a local well, unaware that it was contaminated. You became infected with *Escherichia coli*, which caused diarrhoea.



Travel card

Spain



You have enjoyed the lively streets of Barcelona and its delicious cuisine.



Travel card

Spain



You have visited the capital city of Madrid. Unfortunately, on your return flight you caught a sinus infection caused by *Haemophilus influenzae*, a bacterium typically resident in the upper respiratory tract.

Stick along this edge

Fold

This MICROBIOME belongs to:

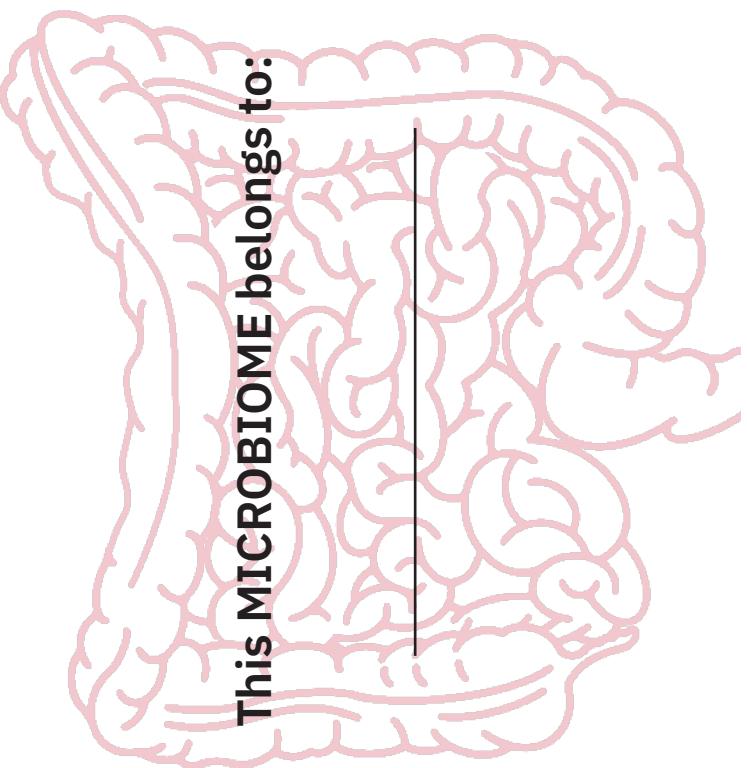


Fold

Stick along this edge

Fold

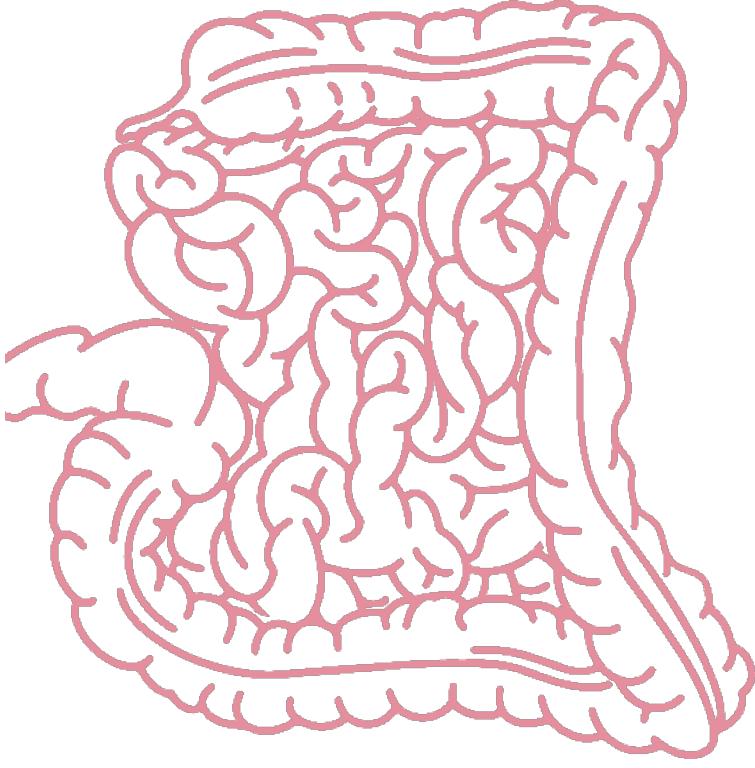
This MICROBIOME belongs to:



Fold

Stick along this edge

Fold



This MICROBIOME belongs to:

