

What are gut bacteria and why do we have them?

The gut is the part of our body that holds the food we eat. Good bacteria live in our body and help us to break up and use the food we eat. There are millions of bacteria that live in your gut, together they are called the “microbiome”. Our gut provides a perfect place for these good bacteria to grow. When we eat a meal, you are not only feeding yourself but also you are feeding your gut bacteria!

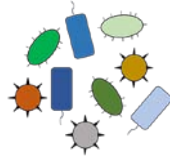
How many kinds of gut bacteria are there and what do they do?

There are thousands of different types of bacteria. Most of them are good. Usually they help us digest food and protect us from bad bacteria. Sometimes bad bacteria in the gut can make us sick. Scientists still do not really understand how the microbiome works. That is why there are studies like this one!

If I participate in this study, who will this help?

Everyone! There may be bacteria in your gut that are not allowing you to be as healthy as possible. Also, the scientists will learn from this study what the good bacteria are, and what we should be feeding them. What we learn from you, we hope will help many, many people in the future!

## Frequently Asked Questions



How many times will I need to give my poop and blood?

We will ask you for some of your poop and blood when you first come to clinic. After that we will ask for blood 2 more times. One after 3 months and one after 6 months from when you start in the study.

We will ask for poop 5 times total. When you first start the study and then every 6 weeks for about 6 months.

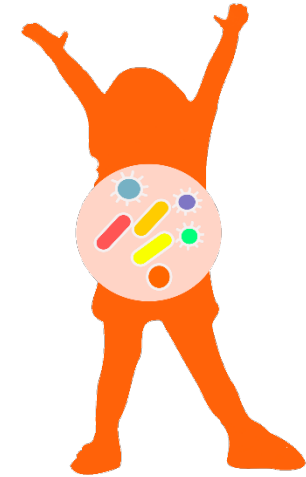
How do you get my poop and blood?

A nurse or expert blood draw technician (phlebotomist) will take your blood using a very small (“butterfly”) needle.

You can give us your poop sample while you are in the clinic (if you can!). If you can't, not to worry. We will send you home with a kit so you can collect your own poop, store in in an airtight (and smell-proof) container. You can either bring that back to us or we will come pick it up from you.

**You will NEVER have to touch poop!**

# Do gut bacteria affect our health?



**POMMS**  
Pediatric Obesity  
Microbiome & Metabolism Study



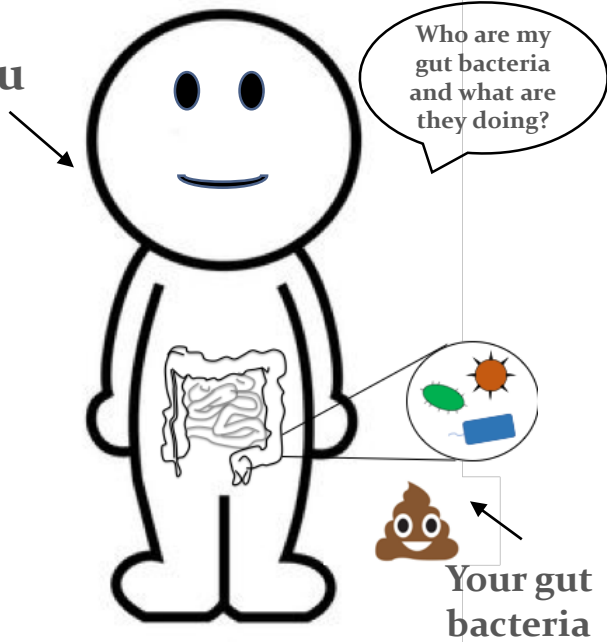
Watch this video to explore the hidden world that lives inside of you.

Find out if this study is right for you.



Get to know your gut bacteria and see what they are up to.

You



What do you have to provide?

### Your poop.

Your poop contains trillions of your gut bacteria. Scientists are interested in learning more about the bacteria that live in your gut.

### Your blood.

When you eat, you are feeding your bacteria. When your bacteria eat that food, they make waste (bacteria pee?). That waste gets absorbed by your body, and we can measure it in your blood.

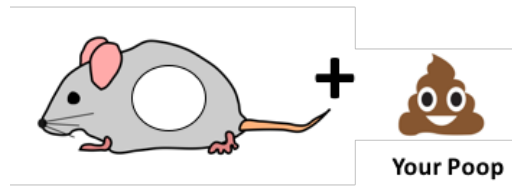
Your part in the study lasts for six months



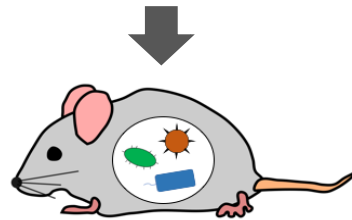
Enrollment in study and sample submission Sample processing Delivery of results



But the study will go on even after you are finished!



Do your gut bacteria cause mice to gain weight?

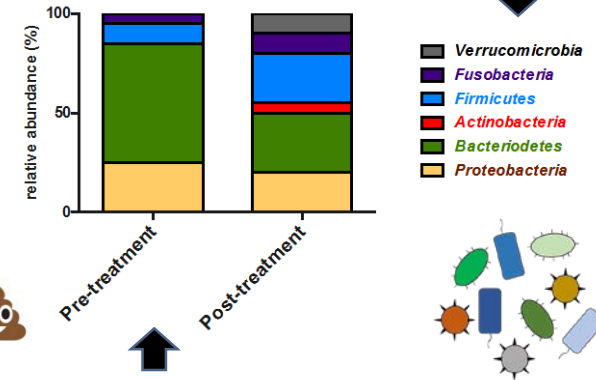


A mouse will provide a new home for your gut bacteria. Scientists can study the how mice react to having YOUR poop inside of them! Weird, right? But depending what happens, we might just find something that can help you and other people too.

My stool sample results

What bacteria are in my gut?

Bacterial Communities from poop samples



How does the mix of bacteria change after I change my diet or lifestyle?

How do bacteria effect my health?

- You want a good mix of different types of gut bacteria. Diversity is key!
- The most common bacteria in human guts are *Firmicutes*, *Bacterioidetes*, and *Proteobacteria*.
- Some of the “good guys” include *Verrucomicrobia Akkermansia*, and *Lactobacillus* (the bacteria in yogurt).
- The good bacteria are really good at digesting your food and are very helpful with being healthy.

What about my blood?



We will tell you if your blood is showing that you have healthy gut bacteria

