



WHEN AND HOW DOES OUR GUT MICROBIOME FORM?

ARI GRINSPAN: The first exposure that we have to bugs is based on how we were delivered-- so the mode of delivery. Were you born via vaginal delivery, or were you born via cesarean section? That is our first exposure.

And the bugs that you get in contact with via the vagina will populate the GI tract. They go into your nose, into your mouth, and you swallow them as a child. Same thing with a cesarean section-- the first bugs you see are going to be the bugs that are on the skin of your mother. And those you-- come into your mouth, and you swallow them. And they form the basis for the gut microbiome.

After delivery, the microbiome is going to be changed based on how you were fed. Were you breast fed? Were you fed via formula?

Other exposures, as you are an infant and a child, include antibiotics. So if you get an antibiotic for an ear infection, that's going to change how your microbiome is in that first-- in that formative period of your life.

If you have brothers or sisters who beat you up, or spit at you, like I did, that will also have an effect on your microbiome.

The people who live in your house, the food that you eat, all these intimate exposures will help shape your microbiome to when you become an adult. Now, in terms of the gut microbiome, when we say "adult," I mean when you're three. So at three your microbiome becomes that similar to of an adult. And that travels with you throughout your life.