

When you get jetlagged, so does your microbiome

Your genome is the same right now as it was yesterday, last week, last year, or the day you were born. But your microbiomes—the combined genes of all the trillions of microbes that share your body—have shifted since the sun came up this morning. And they will change again before the next sunrise.

[Christoph Thaiss](#) from the Weizmann Institute of Science has discovered that the communities of microbes in our guts vary on a daily cycle. Some species rise to the fore during daylight hours and recede into the background at night, while others show the opposite pattern.

These cycles are a lot like our own body clocks, or circadian rhythms. Over a 24-hour period, the levels of many molecules in our body rise and fall in predictable fashion. These rhythms affect everything from our body temperature to our brain activity to [how well we respond to medicine](#). But these clocks tick by themselves. You can reset them by exposing yourself to light at different times of day (which is what we do when we cross time zones and get jetlag), but they are still self-sustaining.

Our microbiome clock is not. The microbes aren't waxing and waning of their own accord. Their world is completely dark. There's no way for them to tell what time of the day it is, except for clues provided by us. The most important of these clues is food. Thanks to our own rhythms, we eat at regular times of the day, and it's these feeding patterns that drive the cycles in our microbiome. Diet is the gear that synchronises the ticks of our clocks with those of our microbes.

Read full, original article: [How Jetlag Disrupts The Ticks of Your Microbial Clock](#)