Antibiotics make way for fungal invasion in human gut

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Abstract

Antibiotics are powerful for fighting infection. But they could create a dangerous imbalance in the gut, where the eradication of harmful bacteria might make room for gut fungi to invade. To find out, researchers analyzed stool samples from 14 healthy participants. Samples were collected over 3 months following a 6-day course of antibiotics. While the bacterial community mostly rebounded over those 3 months, the fungal community shifted from one characterized largely by mutually beneficial interactions (red) to one fraught with competitive interactions (blue) with half of the bacterial-fungal interactions detected before the antibiotic treatment disappearing 3 months later. Metagenomics data revealed that certain bacteria normally help keep opportunistic fungal pathogens like *Candida albicans* in check. Understanding how could help researchers find ways to restore balance to the gut microbiome following drug treatment or during disease.