



FECAL MICROBIOTA TRANSPLANTATION EXPLAINED.

Our guts are home to trillions of microbes. These bacteria and other microscopic organisms are our microbiota. They are essential for our health. And we are essential for their health.

When we eat food, we also feed the bacteria in our gut or large intestine. They digest foods that we can't break down ourselves. And they keep us healthy by boosting our immune systems.

When harmful bacteria enter our bodies, they can cause infections, which make us sick. A doctor might prescribe an antibiotic to fight these harmful bacterial infections. And that can work. But it won't just kill the bacteria that cause the infection, it will kill other bacteria in the gut as well.

A very nasty bacterium, called *Clostridium difficile*, or C. diff for short, can take over and grow in these guts that have low diversity from the antibiotics. Your doctor might prescribe an antibiotic as a first pass for fighting the C. diff. But c-diff is resistant to many antibiotics and can keep coming back, leaving few options to control the infection.

Fecal microbiota transplantation is a process in which a healthy person's microbiota is transferred into another person, in order to benefit the recipient. A potential donor is scanned for pathogens or other health conditions. If the donor has a clean bill of health, then a sample is prepared for the transfer.

Most samples come from a stool bank, rather than a known donor. Transfers are usually done by colonoscopy or by swallowing a pill. After the transfer, the microbiota of the patient becomes more diverse. The C. diff disappears, and the recipient is cured.