

# FECAL TRANSPLANTS

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(8) The fecal solution can be administered in different ways. One way is using an enema which involves injecting the fecal solution into the rectum using a hand held pump. Another method involves using a colonoscope which is a delivery tube with a tiny camera attached for viewing the areas of infection. Unlike the enema, the colonoscope can reach further up into the intestines and produces better results. Another method of introducing the fecal solution is through a nasogastric or nasoduodenal tube. These enter through the nose and are pushed down the digestive tract until they reach the intestines where the fecal solution is then released.

(9) The feces of patients with healthy microbiota are sometimes collected before they undergo treatments with antibiotics. If they develop *C. diff* after the antibiotic treatment, they can be supplied with their own healthy feces from the previously collected sample. Viewing FMT as a good solution to *C. diff* infections, a group of researchers in MIT (Massachusetts Institute of Technology) created the first public stool (feces) bank in the United States in 2012. This stool bank is called OpenBiome and it contains numerous frozen, pre-screened healthy fecal samples to be used by doctors to treat *C. diff* infections.

## Article Questions

- 1) Microbiota (2) is the term for all the microorganisms living in your intestines. Pathogenic means disease-causing (3). 200-300 (7) g of fresh feces is collected from a donor for FMT. OpenBiome (9) is the name of the stool bank opened in 2012 by researchers at MIT. A colonoscope (8) is a device that delivers fecal solution through a tube that contains a mounted camera. *C. diff* releases enterotoxin(3) and cytotoxin.
- 2) What does FMT stand for and what is involved in this procedure?  
FMT stands for fecal microbiota transplant and it involves putting healthy feces from a donor into the intestines of a sick recipient.(1,2)
- 3) How is *C. diff* transmitted from person to person?  
It is transmitted through the fecal oral route. That means that *C. diff* enters the body through the ingestion of *C. diff* contaminated feces.(4)
- 4) How does using broad spectrum antibiotics put a patient at risk of getting a *C. diff* infection?  
These antibiotics kill a wide range of bacteria including the beneficial bacteria in the intestines. Without these bacteria to suppress the growth of *C. diff*, it easily multiplies.(5)
- 5) How does FMT get rid of *C. diff* infections?  
FMT introduces healthy bacteria into a patient's intestines. This bacteria will grow and colonize the intestines to suppress the growth of *C. diff*. (6)
- 6) For FMT, can you get donor feces from anyone? Justify your answer.  
No, you have to screen for donors with healthy fecal samples that don't contain any disease-causing organisms.(7)
- 7) Why might patients who need antibiotic treatment decide to collect a sample of their own feces before the treatment?  
If they collect this healthy feces before their antibiotic treatment, then they can use it in FMT to treat any potential *C. diff* infection that might arise after antibiotic treatment.(9)