

Guide to the Microbiome and *C. difficile* Infection

Information for Patients and Caregivers

The Microbiome is Important for Human Health

The human microbiome is comprised of more than 100 trillion microbial cells and over 1,000 known bacterial species.^{1,2} This community of microorganisms serves important functions that promote health such as nutrient extraction, drug metabolism, immune system balance, hormone regulation, and protection against harmful microbes. An imbalanced microbiome is associated with many health conditions, including infection, inflammatory bowel disease, environmental allergies, obesity, diabetes, cancer, and heart disease.^{3,4}



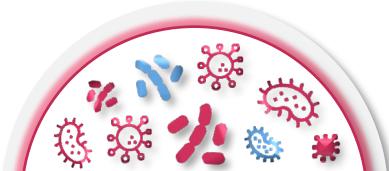
State of Balance

Microbiome balance is preserved by maintaining microbial diversity through a healthy diet and lifestyle



Reduced Diversity

Characteristics associated with reduced diversity include heartburn medications, antibiotics, older age, and chronic disease



State of Imbalance

Reduced microbial diversity, loss of beneficial microbes, and expansion of dangerous microbes occur with imbalance

Clostridioides difficile (*C. diff*) Infection

C. diff is a bacteria that can cause severe diarrhea. It is the most well-studied condition related to an imbalanced microbiome. About 500 million Americans are infected each year with one in four patients experiencing recurrent infection. Antibiotic use, older age, recent stay at a hospital or nursing home, and a weakened immune system are risk factors for *C. diff* infection.

Improve Your Microbiome and Prevent *C. diff*⁶



Talk to your doctor about medications to support a healthy microbiome



Exercise regularly to reduce gut inflammation

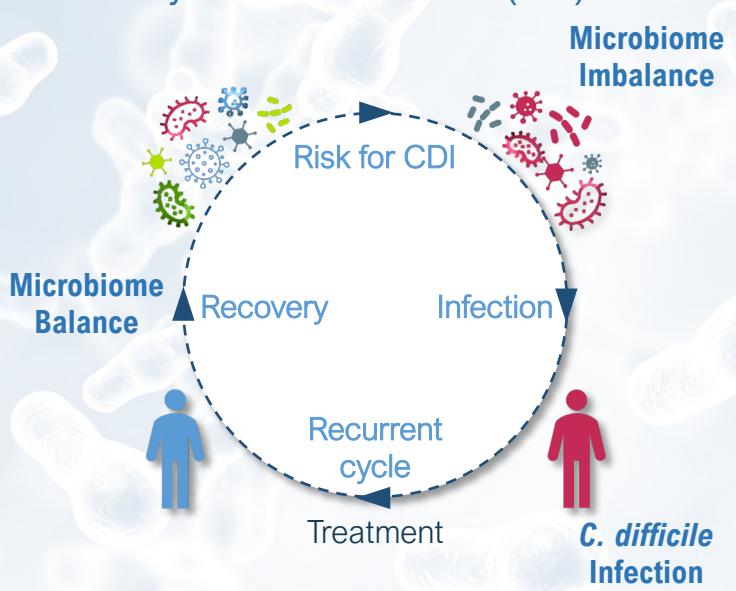


Eat whole foods high in fiber to build up helpful bacteria



Wash hands with soap and water to reduce the spread of *C. diff*

Cycle of *C. difficile* Infection (CDI)⁵



Restore Your Microbiome through Fecal Microbiota Transplant (FMT)⁷

1. DONOR STOOL SAMPLE

Donor samples are screened for general health and germs

2. SAMPLE PROCESSING

Preparation and filtration leave a healthy microbiome sample

3. SAMPLE FORMULATION

Pill and liquid formulations are available for transplant

4. TRANSPLANT

FMT is given by mouth, nose, enema, or colonoscopy

