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Fecal Transplant May Help Reduce Infections in Long-Term Care Patients

Analysis by Dr. Joseph Mercola | September 18, 2025

STORY AT-A-GLANCE

- Fecal microbiota transplantation (FMT) is a therapy that restores balance in the gut by transferring healthy bacteria, helping patients escape the cycle of repeated antibiotic failures and infections
- A recent clinical trial found that FMT was safe and well tolerated in frail long-term care patients, showing fewer bloodstream infections and less antibiotic use than standard care
- Even though transplant recipients still carried resistant bacteria, they experienced fewer serious infections, proving that restoring microbiome diversity strengthens the body's defenses against harmful microbes
- A national registry of 259 patients showed 90% were cured of recurrent Clostridioides difficile (C. difficile) infection after just one FMT treatment, with results lasting beyond six months
- FDA-approved products like Vowst and Rebyota now make FMT accessible in oral capsule and rectal forms, offering new hope for those facing stubborn gut infections

As its name suggests, fecal microbiota transplantation (FMT) is a treatment that involves getting fecal sample from one healthy donor and then transplanting it to the gastrointestinal (GI) tract of another patient to help solve their GI issues. FMT has

shown remarkable results for stubborn gut infections. In fact, one study found that over 90% of patients with recurrent Clostridioides difficile (C. difficile) infection, an illness that causes severe diarrhea, pain, and fever — were cured after just one treatment.

Now, doctors are testing the same approach in long-term care settings, where patients often carry multidrug-resistant bacteria that antibiotics cannot control anymore. Here's what they found.

FMT Shows Promise for Long-Term Care Patients Dealing with Resistant Bacteria

In a clinical trial recently published in JAMA Network Open, doctors in Atlanta, Georgia, investigated whether fecal microbiota transplantation could help frail long-term care patients burdened with multidrug-resistant organisms (MDROs). These bacteria are especially dangerous because antibiotics no longer work against them.[1]

Patients with this type of colonization are at much higher risk of severe infections, bloodstream contamination, and even death. The study tracked how safe the treatment was, whether patients tolerated it, and how it affected infection outcomes over time.

- **The trial involved 42 patients recovering from critical illness at a long-term acute care hospital —** These participants are an especially vulnerable population due to their weakened immunity, frequent exposure to antibiotics, and multiple health problems. For them, any infection can mean extra days in the hospital, invasive treatments, and sometimes very little chance of recovery.

  During the trial, 10 patients received fecal microbiota through a gastrostomy tube or enema, while 32 patients served as the comparison group and received standard care.

- **The results were promising —** The FMT procedure was well tolerated, with no serious treatment-related side effects. In fact, there was only one adverse effect reported (a patient had mild vomiting after administration). And although two

patients died during the study period, their deaths were tied to underlying medical conditions and were not linked to the transplant.

- **When it came to infections, the study found significant differences —** None of the transplant recipients developed bloodstream infections within six months, compared to 19% of the control group. Although the small sample size meant this difference was not statistically significant, the trend matters, especially if you or someone you care for is prone to repeated infections that keep leading back to the hospital.

- **Those who received FMT also required fewer days of antibiotic therapy —** They showed less intestinal dominance by harmful pathogens, which suggests their gut environment was shifting in a healthier direction.

- **Fewer serious infections were being reported even after six months —** During the follow-ups, the researchers found that even though all FMT recipients still carried at least one resistant organism, they were experiencing fewer serious infections compared to untreated patients.

  This is important, because being colonized does not always mean being sick; but when colonization turns into infection, it can be deadly. Knowing that FMT helped reduce the progression from "carrying bacteria" to "life-threatening infection" gives patients and caregivers a reason to consider this approach in high-risk cases.

- **The researchers also pointed out that 60% of the transplant recipients acquired a new category of resistant organism during the trial period —** While this sounds alarming, keep in mind that these patients were living in a setting where MDRO exposure is unavoidable. The fact that they still had fewer bloodstream infections and fewer antibiotics afterward suggests that FMT improved their body's ability to keep these bacteria under control, even if colonization itself didn't disappear.

Understanding the Biology of Your Gut Makes the Findings Clearer

Your gut microbiome acts like an internal defense team. It's made up of trillions of tiny organisms — bacteria, fungi, and even viruses — that live in your intestines. These organisms work together to digest fibers, produce nutrients, regulate your immune system, and even communicate with your brain.

- **When you take antibiotics, your gut's microbiome's delicate balance is disrupted —** Antibiotics do not discern between good and bad organisms; hence, they end up wiping out helpful microbes, allowing harmful ones to grow unchecked, which leads to various problems.

- **Transplanting a balanced set of microbes from a healthy donor allows beneficial microbiome to compete with resistant bacteria —** The good gut bacteria limit the growth of harmful bacteria and help the body respond more effectively. So even if the "bad bugs" remain detectable, they lose some of their ability to cause full-blown infections.

- **Another mechanism the study observed was increased gut microbial diversity after FMT —** Having a diverse gut microbiome is linked with better resilience. For patients, more microbial diversity translates into stronger protection against invasive infections, improved digestion, and less reliance on harsh antibiotic regimens.

Fecal transplantation is not just safe, it also helps reduce the frequency of severe infections, as this study shows. This is particularly important in long-term care environments, where options are scarce. According to an article in News-Medical.net:[2]

> *"Given the current unavailability of FDA-approved therapies, optimizing microbiota conditioning and dosing strategies would be particularly beneficial for long-term acute care hospitals and other health care facilities that treat patients with a high prevalence of intestinal multidrug-resistant microbial colonization."*

While more research with larger groups is needed, the current evidence offers hope that FMT will help you or your loved one avoid another round of aggressive antibiotics, a prolonged hospital stay, or worse offers. It's a proactive tool to restore balance inside the gut and tilt the odds in your favor.

Large Real-World Study Confirms FMT Offers Lasting Relief from Recurrent Gut Infections

A 2020 study published in Gastroenterology analyzed results from the FMT National Registry, the first large-scale effort to track fecal microbiota transplantation outside of clinical trials. The purpose was to see how FMT performs in real-world settings where patients are often older, sicker, and living with multiple health issues. Unlike small, controlled studies, this registry gave a clearer picture of what happens in hospitals and clinics across the U.S. when patients receive this treatment.[3]

- **The registry enrolled 259 people, ranging in age from just 1 year old to nearly 100 —** The majority of the study population was women in their 60s. All of the participants had suffered from C. difficile infection (CDI), many of whom had been through multiple rounds of antibiotics that failed to stop the infection.

- **Effectiveness was the most striking outcome —** The researchers found that just one month after treatment, nine out of 10 patients were free of infection, and almost all of them only needed a single treatment. Even more encouraging, when doctors checked in six months later, only 4% of those who initially improved experienced another recurrence.

- **Side effects did occur, but they were generally mild —** Short-term results showed that nearly half of the patients reported symptoms like bloating, constipation, or abdominal pain, but only 1% had serious issues linked to the transplant itself.

  Doctors even noted that most infections reported in the weeks after treatment were unrelated to FMT. These included urinary tract infections (UTIs) or pneumonia, which are common in this population anyway.

- **The timeline of recovery also revealed important insights —** Relapses tend to occur within the first two months after treatment, which means patients and caregivers can be especially vigilant during that window. After that period, the chances of staying infection-free increased significantly.

- **Here's another unique feature of this study —** It was able to capture patients who normally would never qualify for clinical trials, such as those with inflammatory bowel disease (IBD), irritable bowel syndrome (IBS), or weakened immune systems. These conditions often exclude people from research, yet they are the exact patients most likely to struggle with recurrent CDI.

  By including them, the registry reflected the realities of actual medical practice, showing that FMT works even in complex and fragile patients.

If you've faced multiple relapses despite antibiotics, the data from these two featured studies suggest that FMT gives you a very high chance of breaking the cycle. For patients and families desperate for a lasting solution, these findings provide more than statistics — they give reassurance and offer a path forward.

> *"Real-world evidence is becoming increasingly important in health care and is a recent interest of the Food and Drug Administration in monitoring for adverse events and regulatory decision-making. FMT practitioners, together with the research community, have the responsibility to protect the safety of patients receiving FMT and the opportunity to gain tremendous new insights into the biology of the human gut microbiome,"* the researchers concluded.[4]

FMT Also Offers Protection for People with Liver Disease

People with cirrhosis — defined as the severe scarring of the liver — are another group of patients at increased risk of serious infections. These include bacterial infections caused by multidrug-resistant pathogens. In 2023, British researchers launched the PROMISE trial to investigate whether FMT could be valuable in helping address this issue among **liver disease** patients.

This study is still ongoing and accepting patients.[5] According to Lindsey Edwards of King's College London, and one of the study's authors:[6]

> *"If we can boost liver patients' own immunity to reduce infections by modifying the microbiome, we can reduce the need for the prescription of antibiotics. There is an urgent and unmet need to tackle infection and antimicrobial resistance in chronic liver disease."*

- **Around 300 people with advanced liver disease are included in the study —** The participants are asked to take either a crapsule (which contains freeze-dried feces from healthy donors) or a placebo every three months for two years.
- **Crapsules not only boost gut health but also lower infection risk —** People with liver damage tend to have more "bad" bacteria in the gut, increasing their infection risk. Debbie Shawcross, the study's chief investigator, said, "The 'crapsules,' which have none of the taste or smell as the name suggests, may offer new hope for patients with cirrhosis who are out of treatment options."
- **This is not the first time improving FMT has been considered for treating liver conditions —** In fact, in 2021, a team of Chinese researchers published a report in Seminars in Liver Disease about this topic.[7]

> *"The human gut harbors a dense and highly diverse microbiota of approximately 1,000 bacterial species. The interaction between the host and gut bacteria strongly influences human health,"* they reported.
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> *"Numerous evidence suggest that intestinal flora imbalance is closely associated with the development and treatment of liver diseases, including acute liver injury and chronic liver diseases (cirrhosis, autoimmune liver disease, and fatty liver). Therefore, regulating the gut microbiota is expected to be a new method for the adjuvant treatment of liver diseases."*

Solutions to Reduce Infections and Restore Gut Balance

If you are dealing with repeated infections or caring for someone in long-term care, you know how exhausting it is to feel like antibiotics are the only option. The problem isn't just the bacteria, it's the weakened gut environment that no longer keeps harmful microbes in check. Addressing the cause means restoring balance to your microbiome. Here are practical steps that will help tilt the odds in your favor.

1. **Consider FMT —** These studies suggest FMT is an option worth serious thought, and even fragile patients in long-term care can tolerate it well.

   The good news is that the U.S. Food and Drug Administration (FDA) approved Vowst in 2023. It's the first fecal microbiota product taken orally, and is "approved for the prevention of recurrence of CDI in individuals 18 years of age and older."[8] Earlier, in 2022, the agency also approved live-jslm (brand name Rebyota).[9] This FMT product is given rectally.

2. **Antibiotics should be your last resort, not your first choice —** These drugs disrupt your gut balance, wiping out not only the harmful bacteria but also the protective ones. Even **short-term antibiotic use** affects your long-term gut health. So, whenever possible, avoid antibiotic use (unless it's absolutely required) to preserve the strength of your microbiome. Consider taking a high-quality probiotic supplement and prebiotics as well.

3. **Strengthen gut diversity with gradual dietary improvements —** Your gut thrives on variety. If your digestion allows it, slowly introduce a wider range of whole fruits, fiber-rich carbs, and well-cooked vegetables. If your gut is fragile, start simple with foods like fruit with pulp or white rice. Over time, this gives your microbiome more tools to protect you.

4. **Take practical steps to avoid CDI —** If you are in a hospital or long-term care setting, C. difficile exposure is a constant risk. Lower your chances by practicing strong hand hygiene, especially washing with soap and water since alcohol-based sanitizers don't kill C. difficile spores. Be mindful of what you touch in shared environments, and keep your personal space clean.

If you are prescribed antibiotics, ask why and whether there are alternatives, since broad-spectrum antibiotics are the biggest trigger for C. difficile. Eating a gut-friendly diet and restoring balance after antibiotics also lowers your risk.

Frequently Asked Questions (FAQs) About Fecal Microbiome Transplant (FMT)

Q: What is fecal microbiota transplantation (FMT)?

A: FMT is a therapy that introduces healthy bacteria from a donor's stool into the gut of someone who has lost their natural microbial balance. The goal is to restore a healthy microbiome, which strengthens your body's defenses against harmful bacteria, improves digestion, and reduces the risk of recurring infections that antibiotics alone cannot control.

Q: How effective is FMT for stubborn gut infections?

A: FMT has shown remarkable success rates. In a large U.S. registry study, 90% of patients with recurrent Clostridioides difficile infection were cured after just one treatment. Even better, most stayed infection-free for six months or longer, breaking the exhausting cycle of antibiotics and relapses that many patients face.

Q: Is FMT safe for frail patients in long-term care?

A: Yes, research shows that it is safe even for very fragile patients. A clinical trial in Atlanta tested FMT in long-term care patients who were already weakened by illness and frequent antibiotic use. The procedure was well tolerated, with only one minor side effect reported (mild vomiting). No serious complications were linked to the transplant itself, which makes it a realistic option for vulnerable groups.

Q: Does FMT completely remove resistant bacteria from the gut?

A: FMT doesn't always eliminate resistant bacteria entirely, but it helps the body control them. In the Atlanta trial, all patients still carried at least one resistant organism after treatment. However, those who received FMT had fewer bloodstream infections and needed fewer antibiotics compared to untreated patients. This means that even if resistant bacteria remain, they lose their ability to dominate and cause life-threatening infections.

Q: Are there approved FMT products available?

A: Yes, there are now FDA-approved products that make access to FMT easier. In 2023, Vowst was approved as the first oral capsule for preventing recurrent C. difficile infections, and in 2022, Rebyota was approved as a rectal product. Both offer standardized, regulated ways to deliver the treatment, giving patients new options beyond traditional stool transplants.

Sources and References

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