CLOSTRIDIUM DIFFICILE (C. DIFF)

Fecal Microbiota Transplantation (FMT)

Fecal microbiota transplantation (FMT) is when stool from a healthy donor is made into a liquid mixture and transferred into the colon of a different person to try to reintroduce or boost helpful organisms. FMT is only approved to treat Clostridium difficile (C. diff) infection that has occurred three times despite adequate antibiotic treatment, though there is ongoing research to find out if FMT may work for other health issues.

Who Is a Candidate for FMT?

FMT may be an option for people who have had:

- At least three episodes of mild to moderate C. diff infection that have not responded to six to eight weeks of treatment with antibiotics.
- At least two episodes of severe C. diff infection that called for them to be admitted to the hospital.
- Severe C. diff infection or severe colitis caused by C. diff that did not respond to antibiotics within two days.

Not everyone is a good candidate for FMT. The procedure is risky for people who are taking drugs that suppress the immune system, have had a recent bone marrow transplant, or have cirrhosis of the liver or advanced HIV or AIDS. If you fall into one of these groups, your doctor may urge against it, based on how bad your C. diff infection is and whether you have other problems.
Stool Donors

There are strict standards to become a stool donor.

- Donors must be screened carefully to avoid transmitting dangerous viruses or bacteria to the person with *C. diff*
- Doctors first screen potential donors by asking them the same questions they would ask of potential blood donors.
- Donors will also be tested for diseases that can be spread through the blood, such as hepatitis, HIV and syphilis.
- People who have taken antibiotics within the last three months or who have diseases or conditions of the GI tract, such as irritable bowel syndrome (IBS) or chronic constipation, should not be donors.

Testing of the stool may not be covered by health insurance and can cost more than $500. Donors should check with their insurance companies and plan. A registry for patients who have FMT has been set up by the AGA so that they can be followed over time. Patients who have received FMT are strongly encouraged to be a part of it.

Getting Ready for the Transplant

Though the procedures for FMT will depend on the health of the recipient and the preferences of the doctor doing the transplant, there are many things recipients and donors will have to do to get ready.

Because the long-term results of FMT are not known, the FDA needs an informed-consent form signed by the recipient.
• Doctors use different techniques to do FMT, such as colonoscopy, enema, or infusion through an upper endoscope or nasogastric tube (NG tube; a tube that runs from your nose down into your stomach). Each of these methods has some risk. Oral capsules are available, as well.

• For colonoscopy and enema, there is a very low risk of bowel perforation (a tear or hole in the bowel).

• For transfer by an NG tube, there is a small chance that some of the fluid holding the stool could end up in the lungs and cause an infection there.

**Recipients**

• Ideally, people who are going to get FMT should have an empty GI tract.
• Often, this means drinking only clear fluids and not eating anything for 24 hours before the procedure.
• People with mild or moderate *C. diff* may also be asked to drink a liquid that will make them move their bowels until their whole digestive system is empty.
  – However, those with severe infection, colitis, pseudomembranous colitis (infection in the colon; overgrowth of *C. diff* bacteria) or toxic megacolon (widening of the colon; complication of IBD or infection of the colon) should not drink these preparations.
• Recipients who will get the transplant by enema or colonoscopy may be given loperamide (Imodium®) the day of the procedure.
  – This drug slows down the muscle squeezing in the intestines and colon so that the donor stool stays in the body longer and the helpful organisms in the stool have a chance to take hold.
• If the transplant is to be delivered by a NG tube, the recipient will be given a drug to stop the stomach from secreting acid that can potentially kill the helpful organisms in the donor stool.
Donors

- Donors should avoid any foods that the recipient is allergic to for five days before the transplant. This will give the donor’s body time to clear the food from the GI tract.

- Donors who have any sign of infection, such as fever, diarrhea (loose stool) or throwing up, between the time they are screened and the time of their donation should call the doctor who will be doing the transplant right away.

- Your doctor may tell you to take a certain type of laxative that increases the amount of water in the bowel the night before the procedure. It will make passing a stool easier in the morning.

FMT is considered a success if the person with C. diff has no relapses for eight weeks. Research shows that FMT has a high success rate, though some people with stubborn C. diff may have to have more than one transplant.

Fecal Microbiota Transplantation (FMT) – What to Know:

- Fecal microbiota transplant (FMT) is one way to try to treat Clostridium difficile (C. diff) infection.
- Stool from a healthy donor is processed and transplanted into the sick patient.
- FMT has had very positive results, but is only FDA approved to treat recurrent C. diff for now.
- FMT must be overseen by a gastroenterologist.