

**Effects of Low FODMAP Diet on Colonic Epithelial Physiology
in Diarrhea-predominant Irritable Bowel Syndrome**

NCT04542018

Date of IRB Approval: September 20, 2020

UNIVERSITY OF MICHIGAN

CONSENT TO BE PART OF A RESEARCH STUDY

1. KEY INFORMATION ABOUT THE RESEARCHERS AND THIS STUDY

Study title: Effects of low FODMAP diet on leaky gut and mucosal immune cell abundance in diarrhea-predominant irritable bowel syndrome

This study is internally funded by Michigan Medicine Division of Gastroenterology

Name, degrees, and affiliation of the principal investigator:

Principal Investigator: Prashant Singh, M.D., Department of Internal Medicine, Division of Gastroenterology, University of Michigan

1.1 Key Study Information

You may be eligible to take part in a research study. This form contains important information that will help you decide whether to join the study. Take the time to carefully review this information. You should talk to the researchers about the study and ask them any questions you have. You may also wish to talk to others such as your family, friends, or other doctors about joining this study. If you decide to join the study, you will be asked to sign this form before you can start study-related activities. Before you do, be sure you understand what the research study is about.

A research study is different from the regular medical care you receive from your doctor. Research studies hope to make discoveries and learn new information about diseases and how to treat them. You should consider the reasons why you might want to join a research study or why it is not the best decision for you at this time.

Research studies do not always offer the possibility of treating your disease or condition. Research studies also have different kinds of risks and risk levels, depending on the type of the study. You may also need to think about other requirements for being in the study. For example, some studies require you to travel to scheduled visits at the study site in Ann Arbor or elsewhere. This may require you to arrange travel, change work schedules, find child care, or make other plans. In your decision to participate in this study, consider all of these matters carefully.

This research is studying whether changing an individual's diet may have an impact as a treatment or outcome for IBS. This research will show if diet might play a role in triggering changes that may cause IBS. You will be provided with a meal delivery for four weeks, and have three visits for this study. Two of these visits will include a flexible sigmoidoscopy to collect colon biopsies. This is an exam of the lower part of the large intestine using a small scope that is inserted into your rectum. Your health-related information, tissue, blood, stool, urine, and survey responses will be collected for this research study.

You may not take antibiotics during the entire time that you are in the study. You will have to wait until three months after your last dose of antibiotics to start the study.

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Consent Subtitle: IBS cohort
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There can be risks associated with joining any research study. The type of risk may impact whether you decide to join the study. For this study, some of these risks will include colon biopsies and blood draws. More detailed information will be provided later in this document. The risk of nutritional deficiencies and/or restrictive illness are unlikely in this short-term study.

This study may offer some benefit to you now or others in the future by causing an improvement in IBS symptoms and helping researchers to better understand how diet affects IBS symptoms. More information will be provided later in this document.

We expect the amount of time you will participate in the study will be four weeks.

You can decide not to be in this study. Alternatives to joining this study include continuing with your current care or being in another research study.

Even if you decide to join the study now, you are free to leave at any time if you change your mind.

2. PURPOSE OF THIS STUDY

2.1 Study purpose:

This study is being done to learn if a low FODMAP (fermentable, oligosaccharides, disaccharides, monosaccharides, and polyols) diet causes changes in the colon and improves IBS symptoms.

3. WHO MAY PARTICIPATE IN THE STUDY

Taking part in this study is completely **voluntary**. You do not have to participate if you don't want to. You may also leave the study at any time. If you leave the study before it is finished, there will be no penalty to you, and you will not lose any benefits to which you are otherwise entitled.

3.1 Who can take part in this study?

You can take part in the study if you are 18-65 years old, are not pregnant, have IBS with diarrhea, and haven't been on a low FODMAP or gluten-free diet in the past six months.

3.2 How many people are expected to take part in this study?

A total of 70 people will take part in this study. 40 people with IBS-D and 30 healthy people.

4. INFORMATION ABOUT STUDY PARTICIPATION

4.1 What will happen to me in this study?

You will first have a seven-day screening, beginning with the Baseline Visit:

- Medical history will be collected
- Blood samples will be obtained
- You will be given instructions to do online questionnaires, which will be done throughout the entire study
- You will be given a food diary to record what you eat the entire time that you are in the study
- You will be given a stool collection kit to collect stool at home and bring to your next study visit, the Initiation Visit
- You will be given a powdered drink mix and a urine collection kit for collecting urine (on a day of your choice) to bring to your next appointment. You must not have alcohol, aspirin, or NSAIDs

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for at least seven days before collecting your urine. You must not have mannitol two days prior to collecting your urine. You must not have artificial sweeteners, lactulose, or mannitol (other than what is given to you to drink as a part of the test) during the 24-hour collection period. You will perform this urine collection in the exact same manner a second time before your third and final visit of the study.

The Initiation Visit will be about seven to fourteen days after your Baseline Visit:

- You will have a flexible sigmoidoscopy, where a scope will be inserted about eight inches in the rectum and twelve biopsies will be taken from the recto-sigmoid junction; there is no sedation or preparation
- You will be given the instructions for the four-week low FODMAP diet (meal delivery service provided)
- You will be given a stool collection kit to collect stool at home and bring to your next study visit, the Post-Diet Visit
- You will be given a powdered drink mix and a urine collection kit for collecting urine (on a day of your choice) to bring to your next appointment. You must not have alcohol, aspirin, or NSAIDs for at least seven days before collecting your urine. You must not have mannitol two days prior to collecting your urine. You must not have artificial sweeteners, lactulose, or mannitol (other than what is given to you to drink as a part of the test) during the 24-hour collection period.

The Post-Diet Visit will be about four weeks, plus or minus five days, after your Initiation Visit:

- You will have a flexible sigmoidoscopy, where a scope will be inserted about eight inches in the rectum and twelve biopsies will be taken from the recto-sigmoid junction; there is no sedation or preparation
- Blood samples will be obtained
- Food diary will be returned

4.2 How much of my time will be needed to take part in this study?

The Baseline Visit will take about 30 minutes, and the Initiation Visit and the Post-Diet Visit will take about one hour each. The entire study will take about five weeks.

4.3 When will my participation in the study be over?

You will be finished with the study once you have done all of the questionnaires, returned your stool and urine samples, and completed the Post-Diet Visit.

4.4 What will happen with my information and/or biospecimens used in this study?

With appropriate permissions, your biospecimens and collected information may also be shared with other researchers, here, around the world, and with companies.

Your identifiable private information or identifiable biospecimens may be stripped of identifiers and used for future research studies or distributed to another researcher for future research studies without additional informed consent.

5. INFORMATION ABOUT STUDY RISKS AND BENEFITS

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5.1 What risks will I face by taking part in the study? What will the researchers do to protect me against these risks?

The known or expected risks are:

Blood Drawing

The risks and discomforts of blood drawing from a vein include the possibility of pain or bruising at the site of the blood draw; occasional feeling of lightheadedness; and rarely, infection at the site of the blood draw. The blood draw is performed by a trained staff member who regularly does blood draws and this minimizes your risk.

Flexible Sigmoidoscopy

There are possible risks for flexible sigmoidoscopy related complications such as bleeding or perforation. These are very unlikely to occur as we will be examining and taking biopsies from the last 8 inches of colon. These complications are very rare and unlikely to happen. The procedure is performed by a gastroenterologist who performs this procedure regularly. This minimizes the chances of having these risks occur.

Lactulose and Mannitol Consumption

Lactulose can commonly cause diarrhea for a short period of time. Mannitol may cause dehydration, but this is rare a small amount like you are taking for the study.

Low FODMAP Diet

The low FODMAP diet may commonly cause a change in your stool consistency (such as constipation) or pattern. It may cause weight loss, which is rare.

Loss of Confidentiality

Additionally, there may be a risk of loss to confidentiality or privacy. See Section 9 of this document for more information on how the study team will protect your confidentiality and privacy.

As with any research study, there may be additional risks that are unknown or unexpected.

5.2 What happens if I get hurt, become sick, or have other problems as a result of this research?

The researchers have taken steps to minimize the risks of this study. Even so, you may still have problems or side effects, even when the researchers are careful to avoid them. Please tell the researchers listed in Section 10 about any injuries, side effects, or other problems that you have during this study. You should also tell your regular doctors.

5.3 If I take part in this study, can I also participate in other studies?

Being in more than one research study at the same time, or even at different times, may increase the risks to you. It may also affect the results of the studies. You should not take part in more than one study without approval from the researchers involved in each study.

5.4 How could I benefit if I take part in this study? How could others benefit?

You may not receive any personal benefits from being in this study. However, others may benefit from the knowledge gained from this study.

The diet may help with some of your symptoms.

5.5 Will the researchers tell me if they learn of new information that could change my willingness to stay in this study?

Yes, the researchers will tell you if they learn of important new information that may change your willingness to stay in this study. If new information is provided to you after you have joined the study, it is possible that you may be asked to sign a new consent form that includes the new information.

6. ALTERNATIVES TO PARTICIPATING IN THE STUDY

6.1 If I decide not to take part in this study, what other options do I have?

There may be other ways of treating your condition, including standard treatment or a different study. You should consult with your regular doctors about these options.

7. ENDING THE STUDY

7.1 If I want to stop participating in the study, what should I do?

You are free to leave the study at any time. If you leave the study before it is finished, there will be no penalty to you. You will not lose any benefits to which you may otherwise be entitled. If you choose to tell the researchers why you are leaving the study, your reasons for leaving may be kept as part of the study record. If you decide to leave the study before it is finished, please tell one of the persons listed in Section 10 "Contact Information".

7.2 Could there be any harm to me if I decide to leave the study before it is finished?

No

7.3 Could the researchers take me out of the study even if I want to continue to participate?

Yes. There are many reasons why the researchers may need to end your participation in the study.

Some examples are:

- The researcher believes that it is not in your best interest to stay in the study.
- You become ineligible to participate, including blood test or survey results that show that you may have something other than IBS-D.
- Your condition changes and you need treatment that is not allowed while you are taking part in the study.
- You do not follow instructions from the researchers.
- The study is suspended or canceled.

8. FINANCIAL INFORMATION

8.1 Who will pay for the costs of the study? Will I or my health plan be billed for any costs of the study?

There are no costs or billing for this study.

If you are injured or in the event of a medical emergency, dial 911 or visit your nearest Emergency Room. If you believe the study has made you sick or caused you injury, contact one of the people listed

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in section 10 of this document (Contact Information). If taking part in the study makes you sick or causes you injury, you or your insurance provider will be billed for all costs of treatment as the study does not provide compensation for sickness or injury caused by the study. It is possible that your insurance will not cover these costs.

By signing this form, you do not give up your right to seek payment if you are harmed as a result of being in this study.

8.2 Will I be paid or given anything for taking part in this study?

You will be provided with low FODMAP meals delivered to your home for four weeks for no cost. If you leave the study before the four weeks, you will stop receiving the meals. You will receive parking vouchers for your visits.

8.3 Who could profit or financially benefit from the study results?

No person or organization has a financial interest in the outcome of the study.

9. CONFIDENTIALITY OF SUBJECT RECORDS AND AUTHORIZATION TO RELEASE YOUR PROTECTED HEALTH INFORMATION

The information below describes how the confidentiality of your research records will be protected in this study, and any sub-studies described in this document.

9.1 How will the researchers protect my information?

Your study records will be kept in locked cabinets in locked offices, and on password-protected, restricted access computers. However, if the researcher orders any tests, the order and results may become part of your regular medical record.

9.2 What protected health information (PHI) about me could be seen by the researchers or by other people? Why? Who might see it?

Signing this form gives the researchers your permission to obtain, use, and share information about you for this study, and is required in order for you to take part in the study.

Medical information and billing records are protected by the privacy regulations of the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA). This type of information is called protected health information (PHI). PHI about you may be obtained from any hospital, doctor, and other health care provider involved in your care, including:

- All records relating to your condition, the treatment you have received, and your response to the treatment
- Demographic information
- Personal identifiers

There are many reasons why information about you may be used or seen by the researchers or others during or after this study. Examples include:

- The researchers may need the information to make sure you can take part in the study.
- The researchers may need the information to check your test results or look for side effects.

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- University, Food and Drug Administration (FDA) and/or other government officials, auditors, and/or the IRB may need the information to make sure that the study is done in a safe and proper manner.
- Safety monitors or committees may need the information to:
 - Make sure the study is done safely and properly
 - Analyze the results of the study
- The researchers may need to use the information to create a databank of information about your condition or its treatment.
- Information about your study participation may be included in your regular UMHS medical record.
- Federal or State law may require the study team to give information to government agencies. For example, to prevent harm to you or others, or for public health reasons.

The results of this study could be published in an article, but would not include any information that would let others know who you are.

9.3 What happens to information about me after the study is over or if I cancel my permission to use my PHI?

As a rule, the researchers will not continue to use or disclose information about you, but will keep it secure until it is destroyed. Sometimes, it may be necessary for information about you to continue to be used or disclosed, even after you have canceled your permission or the study is over.

Examples of reasons for this include:

- To avoid losing study results that have already included your information
- To provide limited information for research, education, or other activities. (This information would not include your name, social security number, or anything else that could let others know who you are.)
- To help University and government officials make sure that the study was conducted properly

As long as your information is kept within the University of Michigan Health System, it is protected by the Health System's privacy policies. For more information about these policies, ask for a copy of the University of Michigan "Notice of Privacy Practices". This information is also available on the web at <http://www.uofmhealth.org/patient+and+visitor+guide/hipaa>. Note that once your information has been shared with others as described under Question 9.2, it may no longer be protected by the privacy regulations of the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA).

9.4 When does my permission to use my PHI expire?

Your permission expires at the end of the study, unless you cancel it sooner. You may cancel your permission at any time by writing to the researchers listed in Section 10 "Contact Information" (below). If you withdraw your permission, you may no longer be eligible to participate in this study.

10. CONTACT INFORMATION

10.1 Who can I contact about this study?

Please contact the researchers listed below to:

- Obtain more information about the study

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- Ask a question about the study procedures or treatments
- Report an illness, injury, or other problem (you may also need to tell your regular doctors)
- Leave the study before it is finished
- Express a concern about the study

Principal Investigator: Prashant Singh
Mailing Address: 6520B, MSRB1, 1150 MEDICAL CENTER DR
Telephone: 857-301-2494

Study Coordinator: Constantine Nolan
Mailing Address: 52 Simpson Memorial Institute, 102 Observatory, Ann Arbor, MI 48109
Telephone: 734-647-9994

You may also express a question or concern about a study by contacting the Institutional Review Board listed below:

University of Michigan Medical School Institutional Review Board (IRBMED)
2800 Plymouth Road
Building 520, Room 3214
Ann Arbor, MI 48109-2800
Telephone: 734-763-4768 (For International Studies, include the appropriate [calling codes](#).)
Fax: 734-763-1234
e-mail: irbmed@umich.edu

If you are concerned about a possible violation of your privacy or concerned about a study you may contact the University of Michigan Health System Compliance Help Line at 1-866-990-0111.
When you call or write about a concern, please provide as much information as possible, including the name of the researcher, the IRBMED number (at the top of this form), and details about the problem. This will help University officials to look into your concern. When reporting a concern, you do not have to give your name unless you want to.

11. RECORD OF INFORMATION PROVIDED

11.1 What documents will be given to me?

Your signature in the next section means that you have received copies of all of the following document:

- This "Consent to be Part of a Research Study" document. (*Note: In addition to the copy you receive, copies of this document will be stored in a confidential research file and may be entered into your regular University of Michigan medical record.*)

12. SIGNATURES

Consent to Participate in the Research Study

I understand the information printed on this form. I have discussed this study, its risks and potential benefits, and my other choices with [NAME OF STUDY TEAM MEMBER OBTAINING CONSENT] _____. My questions so far have been answered. I understand that if I have more questions or concerns about the study or my participation as a research subject, I may contact one of the people listed in Section 10 (above). I understand that I will receive a copy of this form at the time I sign it and later upon request.

Print Legal Name: _____

Signature: _____

Date of Signature (mm/dd/yy): _____

Principal Investigator or Designee

I have provided this participant with information about this study that I believe to be accurate and complete. The participant indicated that he or she understands the nature of the study, including risks and benefits of participating.

Printed Legal Name: _____

Title: _____

Signature: _____

Date of Signature (mm/dd/yy): _____