Research study: The 8x5 Diet for Bile Acid Diarrhoea

Information Sheet for Participants

You are being invited to take part in a research study on a new healthy dietary pattern if you are living with bile acid diarrhoea of unknown cause or after gallbladder removal and have ongoing diarrhoea. This research is part of a degree for a Doctor of Philosophy in Nutrition at The University of Manchester. Before you decide whether to take part, it is important for you to understand why the research is being conducted and what it will involve. Please take time to read the following information carefully before deciding whether to take part, and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Thank you for taking the time to read this.

About the research

Who will conduct the research?

Yvonne McKenzie, PhD candidate in Nutrition at the School of Health Sciences, Faculty of Biology, Medicine and Health, The University of Manchester

with Dr Sorrel Burden, Reader in Nutrition and Dietetics and Professor Chris Todd, Professor of Primary Care & Community Health, who are also at the School of Health Sciences, Faculty of Biology, Medicine and Health, The University of Manchester.

What is the purpose of the research?

This team of researchers is investigating how food, nutrition and diet can be helpful for the management of BAD in adults.

Currently, treatment is with medicine and needs to be taken daily and is lifelong. Long-term, one out of every two adults have ongoing symptoms. Many people living with bile acid diarrhoea (BAD) alter their diet to control their symptoms. However, dietary management, including a 'low-fat diet', has not been well or widely studied. We do not know what type of diet is safe and effective for managing BAD. Many people living with BAD are more likely to have other issues such as no gallbladder, IBS, anxiety, overweight and obesity. In BAD, we do not know to what extent peoples' diets are nutritionally balanced because this has not yet been addressed. This is important to know, in particular amongst those who are continuing to find ways to feel better.

We have developed a healthy dietary pattern for adults living with BAD. Called The 8x5 Diet, it is based on eating whole foods and framed on the UK's healthy eating recommendations. More specifically, it is defined by its fat intake, its daily eating pattern, keeping adequately hydrated, having a variety of whole grains, fruit and vegetables, and use of certain plant fibres. The purpose of this research is to assess whether this healthy dietary pattern can work under robust scientific conditions called a randomised controlled feasibility trial.

We need a total of 76 participants. At this stage of the research, we have chosen not to include the types of BAD that can be more complicated, such as when it develops after cancer treatment or in Crohn's disease. To conduct this study as high-quality research we need to randomly allocate participants to either a control group or an intervention group for 8 weeks. If allocated to the control

group, you will continue to follow your usual diet. If allocated to the intervention group, you will be advised on how to follow The 8x5 Diet. You and the research team will know which diet group you were allocated to. By taking part you will provide important, new, scientific information to inform on nutrition in BAD and The 8x5 Diet for progressing to a future, larger research study for the dietary management of BAD. This research is to our knowledge a first in the world for BAD: no similar nutritional studies in BAD exist anywhere else. We believe the results of this study will help steer research towards making the lives better for people living with BAD.

Am I suitable to take part?

We'd like you to consider participating in this research study if you:

- Are at least 18 years of age
- Live in the United Kingdom
- Have a confirmed diagnosis of BAD that was determined by a gastroenterologist using a test called SeHCAT, and the cause or reason you have BAD is unknown, or BAD developed after you had your gallbladder removed
- Have ongoing diarrhoea
- Have explored medication to treat your BAD symptoms
- Have access to a computer, laptop, smartphone, or tablet with video and a stable internet connection
- Would be willing to keep a detailed food diary.

If you are thinking about taking part, do contact Yvonne by email to discuss the study either in Zoom or by telephone. Any questions about the study will be answered and you can find out if you are eligible to take part. Her email address is at the end of this information sheet.

This study may be particularly suitable for you if you are interested in food and what you eat and drink. An important part of this study is to obtain accurate information on what you eat and drink to assess nutritional intake in BAD and after following The 8x5 Diet. However, carefully recording what you eat and drink takes some time. If there is little time at home to prepare meals, then you may not be suitable for this study. Please note that this short-term study is not suitable for you if you would want to use it to lose weight. You should be familiar with digital technology, using a smartphone, computer, laptop, or tablet on a regular basis. This is so that we can undertake the appointments virtually using a video conferencing platform (in Zoom or Microsoft Teams).

If you are unsure about your suitability, then please telephone Yvonne to discuss this. If you are eligible to participate, then you cannot choose which diet group you are allocated to.

Will the outcomes of the research be published?

We plan to publish the outcomes of this research in open access peer-reviewed journals. Access to these publications will be presented on the BAD UK website. BAD UK is the UK's national charity supporting BAD (https://www.bad-uk.org). Access will also be via emailed news to their membership, as well as on the trial website.

We will publish a summary of our findings, and in making this accessible to you, would like to email the outcomes to you, as well as publish them on the BAD UK website and via news to their membership.

Yvonne McKenzie also plans to present the outcomes at conferences.

You will not be identified in these publications or conferences. This study forms part of Yvonne's PhD in Nutrition thesis and is for educational purposes. Dissemination of the publications will also be via a social media platform, such as X (handles: @The8x5Diet; @digestnutrition).

Disclosure and Barring Service (DBS) Check

Yvonne McKenzie declares to have undergone an appropriate level of DBS check, determined by The University of Manchester.

Who has reviewed the research project?

This research study has been independently reviewed. Firstly, by the membership including trustees of BAD UK. Secondly, the study has also been reviewed by The University of Manchester Research Ethics Committee to protect your personal data, rights, safety, and wellbeing.

What would my involvement be?

What would I be asked to do if I took part?

If you are eligible to participate and provide face-to-face verbal consent, you will be emailed the consent form to complete and sign in your own time. You would return this to Yvonne via email to enable your enrolment into the study. There are two ways you can provide written consent. You can print the consent form, provide a wet signature, scan the form and return it via email. Alternatively, you can type your name on the consent form and when returning it via email to Yvonne, confirm in the body of your email that you have 'signed' the consent form. We will retain this email. We will write a letter to your doctor at your primary healthcare centre to inform them that you have agreed to participate in this study. This letter and your signed consent form will be kept safe and secure by storing it in a password protected folder on The University of Manchester's Research Data Storage service.

All participants will attend two face-to-face appointments on a web-supported platform (Zoom or Microsoft Teams). There will be a baseline appointment and an end of trial appointment. Straight after the baseline appointment, there is a baseline period of up to 14 days to collect the first set of data. You would then be randomly allocated to one of two diet groups to follow the allocated diet for the trial duration of 8 weeks. A second set of data will be collected at the end of Week 8 which will be followed by the end of trial appointment. After the 8-week trial, all in the intervention diet group will be invited to take part in an interview.

1. Baseline appointment

This appointment will be booked with you at your convenience to enrol you into the study and prepare you for data collection during the baseline period and at Week 8. It will last for about 60 minutes. At this appointment:

- You will be welcomed to the study. We will check that you are content with your understanding of and involvement in the study in accordance with this information sheet
- Please do ask any further questions you may have about the study so that they can be openly discussed before proceeding to the next step
- You will be given your study participant identification (ID) number. This will be used to identify you on all data collected in this study
- You will be asked to complete a questionnaire on general information about you that includes on your age, sex, ethnic group, marital status, work status, and education level. This will take 5 to 10 minutes to complete.

You will receive instruction on:

- The self-assessments required during the baseline period and repeated during Week 8:
    - A questionnaire about your diet (about 15 minutes to complete)
    - One questionnaire about your quality of life (about 10 minutes to complete)
    - A 7-day food and symptom diary. You will need to record your daily bowel movements. Filling out a food diary is a time-consuming activity and we cannot specify how long this will take to complete. It involves you accurately recording all food and beverages, including alcohol, you consume over 7 consecutive days. To do this you will need kitchen weighing scales and measuring spoons such as those used for baking. You may need to be able to read the information on manufactured food packaging. You will be able to email photographs of food packaging and meals, so long as they do not identify any part of you or show any personal information. This may be helpful for supporting accuracy of food intake. Please consider how much of a burden this activity is, which we would want you to do twice, before consenting to participating in this study.

      Each diary will later be analysed to find out about nutrient intakes. With your consent, you will be able to receive the individual reports of your nutrient intakes. For any identified high and low nutrient intakes of vitamins and minerals, general guidance will be given in each report on what foods contain these relevant nutrients.
- Completing a diary for reporting on any issues and adverse effects whilst you participate in the 8-week trial. An issue is: anything you experience during the trial that you feel is difficult, ineffective, inefficient, or could be improved. An adverse effect is: any symptoms or worsening of symptoms which you feel are related to being in the trial, such as constipation, headache, or heartburn
- When you will be informed on your random allocation to either diet group for 8 weeks
- What to do should you wish to or need to discontinue your participation in the study.

We will ask you how you would like to electronically complete the questionnaires and diaries so that you can receive them via email in your preferred format: Microsoft Word or portable document (pdf).

For the 7-day diary: this can be completed as a paper diary which you can print or you can ask Yvonne to post two to you by Post Office service. You will need to electronically return the completed diaries and questionnaires. If you use pen and paper for the 7-day diary, then screen shots of each diary page will need to be made with your smartphone or tablet and then emailed to Yvonne. You will not be able to return the paper diary in the post to the research team.

2. Baseline phase

This phase begins the day after the baseline appointment and lasts for up to 14 days. Within this timeframe you would:

- Complete the questionnaire about your diet
- Complete the two questionnaires on your quality of life
- Complete the first 7-day food and symptom diary
- Measure your height using a measuring tape, recording this in the food and symptom diary (less than 10 minutes to complete)
- Measure your body weight using bathroom or medical scales, recording this in the food and symptom diary (less than 5 minutes to complete)
- Electronically return the completed questionnaires and 7-day food and symptom diary.

You will then be randomly allocated to one of two groups for the 8-week trial:

A. the Control diet group

B. The 8x5 Diet group

by a computer, a task undertaken by a researcher from The University of Manchester not involved in this study. The research team will confirm the allocation via email.

Control diet group

If randomised to the control group you will continue with your usual diet for the next 8 weeks. At Week 6 we will email you to:

- Remind you in advance about what we would like you to do during Week 8
- Arrange your end of study appointment.

Intervention diet group

If randomised to the intervention group Yvonne will contact you to arrange for you to attend two appointments, three weeks apart.

The first appointment will be for about 45 minutes and involves:

- Learning about The 8x5 Diet to follow it for 8 weeks
- Discussing The 8x5 Diet information and supporting aids which will be emailed to you on the same day of your appointment

- You will have Yvonne's phone and email details for any questions or issues about changing your dietary pattern.

The second appointment will be for 30 to 45 minutes and involves:

- Further learning about The 8x5 diet to follow it to study endpoint
- Further discussion on The 8x5 diet information and aids to support you sticking to the dietary changes
- Arranging your end of study appointment.

Changes to your diet are discussed with you during these appointments, and in relation to the personal circumstances you share with Yvonne. She will be able to help answer any questions you have. Resources will be emailed to you. Making dietary changes can be a burden. This may depend on how fixed habits and circumstances are for you and how these changes might affect those close to you. During this study, grocery shopping might take longer because you may have new foods to find. You may need to read more nutritional labels on packaging, such as on pre-prepared foods and ready-made meals. It is possible that grocery shopping could cost more. The dietary changes could be a burden on eating away from home and having take-aways. See also Study Support below.

3. <u>During the 8-week trial period</u>, you would:

- Follow the diet they are allocated to
- Keep a diary to report on any issues or adverse effects
- Continue with current medications and usual appointments with your GP or consultants.

4. <u>During Week 8</u>, you would:

- Complete a second 7-day food and symptom diary.

5. <u>At the end of Week 8</u>, you would:

- Re-measure your body weight, recording this in the food and symptom diary
- Return your completed diaries (Issues and adverse effects, 7-day food and symptom diary)
- Complete and return the same questionnaires from the baseline period (on your diet, quality of life, about 20 minutes to complete)
- If you are in The 8x5 Diet group (only): Complete and return one questionnaire about how satisfied you were following the diet (about 5 minutes to complete).

5. <u>End of study appointment</u>

This appointment will take about 30 minutes and involve:

- Checking diaries and questionnaires for any missing or unclear entries
- Checking for any changes to your BAD medication

- Thanking you for your participation in the study
- Reconfirming in accordance with this information sheet and your written informed consent:
    - how and when we will inform you about the study's findings
    - provide you with the reports on your nutritional intake
    - will maintain your right to privacy, honouring your confidentiality and anonymity
- Asking you if would like the reports of your nutritional intake from the two food diaries to be emailed to you after the data have been analysed
- If you are in the intervention group: Inviting you to voluntarily take part in an audio-recorded interview.

6. Post-trial semi-structured interview (intervention group only)

This will take place within 4 weeks of trial endpoint. It will take about 30 minutes and involve:

- Asking you about your views and experiences on your participation in the study.

After this interview, in accordance with procedures stated in this information sheet and your written informed consent, we will maintain your right to privacy, confidentiality and anonymity.

Study support

We will ask you to consent to being contacted for:

- Answering any queries as soon as possible by email and telephone during normal working hours that may arise from keeping a record on foods and beverages consumed in the first food and symptom diary
- Any issues you may have during the 8-week trial.

The study has been designed to minimise on causing any physical symptoms or emotional distress. If something were to go wrong and you are harmed, then you may have grounds for legal action for compensation against The University of Manchester. You may have to pay your legal expenses. The normal National Health Service mechanisms will still be available to you.

Will I be compensated for taking part?

No financial compensation is being offered to participants.

What happens if I do not want to take part or if I change my mind?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and will be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time without giving a reason and without detriment to yourself. However, it will not be possible to remove your data from the project once it has been anonymised as we will not be able to identify your specific data. This does not affect your data protection rights. If you decide not to take part you do not need to do anything further.

If you are allocated to The 8x5 Diet group and accept the invitation to participate in the interview with the researcher it is essential that this interview is audio-recorded. You should be comfortable with the recording process at all times and would be free to stop recording at any time to take a break, continue at another agreed time, or withdraw without giving a reason and without detriment to yourself. Any note taking will also be stopped. Notes will be used only to help with the understanding of the audio-recording and kept with the research team. They will be digital, password protected and securely stored in The University of Manchester's secure Research Data Storage service for a minimum of 5 years after publication before being disposed of in accordance with The University of Manchester's Research Data Management Policy. If notes are created on paper they will be digitalised as soon as possible and the paper will be stored in a locked cabinet in a secure office only available to the researchers for only as long as is necessary before being shredded in accordance with The University of Manchester's policy.

Data Protection and Confidentiality

What information will you collect about me?

In order to participate in this research project we will need to collect information that could identify you, called "personal identifiable information". Specifically we will need to collect:

- First name, last name
- Contact details (home address, phone numbers, email address)
- A recording of your voice only during the interview – only if you are allocated to The 8x5 Diet group and agree to an interview
- Date of birth
- Ethnicity group
- Sex (biological)
- Work status/title
- Health information: body weight, height.

Your participation in this study will be kept confidential to the study team. Your medical information and history including on your BAD and medication, information on your diet and lifestyle disclosed during the study will be kept confidential unless required by law to be shared.

The study will be conducted by Yvonne, who is a dietitian with over 25 years of clinical experience, all in UK healthcare:

Health and Care Professions Council Registration No: DT07090

BDA, the Association of UK Dietitians full member: 5650

Under what legal basis are you collecting this information?

We are collecting and storing this personal identifiable information in accordance with UK data protection law which protect your rights. These state that we must have a legal basis (specific reason) for collecting your data. For this study, the specific reason is that it is "a public interest task" and "a process necessary for research purposes".

What are my rights in relation to the information you will collect about me?

You have a number of rights under data protection law regarding your personal information. For example you can request a copy of the information we hold about you, including audio recordings.

If you would like to know more about your different rights or the way we use your personal information to ensure we follow the law, please consult our Privacy Notice for Research.

Will my participation in the study be confidential and my personal identifiable information be protected?

In accordance with data protection law, The University of Manchester is the Data Controller for this project. This means that we are responsible for making sure your personal information is kept secure, confidential and used only in the way you have been told it will be used. All researchers are trained with this in mind, and your data will be looked after in the following way:

The study team will have access to your personal information and they will anonymise it as soon as possible. Your name and any other identifying information will be removed and replaced with an assigned ID number. The research team will have access to the key that links this ID number to your personal information. This will be stored separate and securely from the dataset and other files, including your consent form and the letter we write to your GP to inform them of your participation in this study. The de-identified (pseudonymised) data collected will be transferred as soon as possible to The University of Manchester's Research Data Storage service for secure storage. Once all of the data has been analysed, we will destroy the key, anonymising your data. Final reports and publications will not be able to identify you.

Your consent form (this will include your name and signature) and letter to your GP (this will include your name, date or birth, and home address) will be retained for a minimum of 5 years after publication of this research in a password protected digital folder for audit purposes. With your consent, we would also like to retain your contact details in a separate password protected digital folder for this same minimum of 5 years duration in order to provide you with a summary of the findings for this study and also to inform you about future studies that you may be interested in. If you provide consent for this, your contact details will be safely and securely stored using The University of Manchester's Research Data Storage service only accessible to the study team and used only for the purposes described above. You will be free to opt out of this communication and should you not respond after three communications using any of email or telephone, then we will not contact you any further.

After the trial, if you are in The 8x5 Diet Group, your participation in an interview will be audio-recorded in Zoom or Microsoft Teams and your personal data will be processed by Zoom or Microsoft. This may mean that your personal data is transferred to a country outside of the European Economic Area, some of which have not yet been determined by the United Kingdom to have an adequate level of data protection. Appropriate legal mechanisms to ensure these transfers are compliant with the Data Protection Act 2018 and the UK General Data Protection Regulation are in place. The recordings will be removed from the above third party platform, pseudonymised (link-anonymised) and stored on The University of Manchester’s Research Data Storage as soon as possible following the completion of your data collection. Audio recordings will be transcribed using Microsoft Word or securely transferred to a transcription company approved by The University of Manchester for third party transcribing. At the end of the project recordings will be permanently deleted from The University of Manchester’s Research Data Storage service.

When you agree to take part in a research study, and with your informed consent, the information that you may be provided to researchers running other studies here or in other organisations. The future research would be of a similar nature to this research project, concerning BAD. With your

consent your anonymised information will be shared in order to support additional research in accordance with The University of Manchester's Research Privacy Notice**.**

This information will not identify you and will not be combined with other information in a way that could identify you. The information will only be used for the purpose of further research in BAD, and cannot be used to contact you regarding any other matter. It will not be used to make decisions about future services available to you.

At the end of the project we will deposit a fully anonymised dataset (excluding de-identified interview transcripts) in an open data repository where it will be stored indefinitely. We will use Figshare at The University of Manchester Library. Researchers at other institutions and others can access the anonymised data directly from the repository and use it for further research or to check our analyses and results.

Potential disclosures

If, during the study, we have concerns about your safety or the safety of others, we will inform your GP/care team/family member.

If, during the study, you disclose information about any current or future illegal activities, we have a legal obligation to report this and will therefore need to inform the relevant authorities.

Please also note that individuals from The University of Manchester or regulatory authorities may need to look at the data collected for this study to make sure the project is being carried out as planned. This may involve looking at identifiable data. All individuals involved in auditing and monitoring the study will have a strict duty of confidentiality to you as a research participant.

What if I have a complaint?

Contact details for complaints

If you have a complaint that you wish to direct to members of the research team, please contact:

DR SORREL BURDEN

Email: sorrel.burden@manchester.ac.uk.

Tel: 0161 306 1508

If you wish to make a formal complaint to someone independent of the research team or if you are not satisfied with the response you have gained from the researchers in the first instance then please contact:

The Research Ethics Manager, Research Office, Christie Building, The University of Manchester, Oxford Road, Manchester, M13 9PL, by emailing: research.complaints@manchester.ac.uk or by telephoning: 0161 306 8089.

If you wish to contact us about your data protection rights, please email: dataprotection@manchester.ac.uk or write to The Information Governance Office, Christie Building, The University of Manchester, Oxford Road, M13 9PL at the University and we will guide you through the process of exercising your rights.

You also have a right to complain to the Information Commissioner's Office about complaints relating to your personal identifiable information Tel: 0303 123 1113

Contact Details

If you have any queries about the study or if you are interested in taking part, then please contact the researcher **YVONNE McKENZIE**

Email: yvonne.mckenzie@postgrad.manchester.ac.uk Tel: 07966 878 758