MRC Epidemiology Unit

Fenland Study Update – Spring 2022

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Welcome to the Fenland Study Newsletter for study volunteers, in which you can read about nutrition and its impact on health, our webinar on the Fenland COVID-19 Study, and how we aim to keep you better informed about the Study.



It is also an opportunity to highlight the wider work of the MRC Epidemiology Unit at the University of Cambridge. In recent months, we've published important papers on topics as diverse as the role of genetics in regulating the relationship between nutritional status and growth and development, what changes our risk of diabetes, the state of our food system, and levels of cycling frequency in different countries around the world.

You can read more about this research and other highlights from the last year in the latest edition of *epigram*, the newsletter for the MRC Epidemiology Unit. You can also subscribe to receive future issues of *epigram* and other updates by email.

Data from the Fenland Study is a key component of many of the discoveries highlighted above, and we thank you for your on-going contribution and support in this important work.

Measuring blood-based markers of food consumption and understanding pathways to disease

Everyone knows that a healthy diet is key to living a healthy and long life, but the devil is in the detail. What are the components of a high quality diet? What are the mechanisms



by which our diet quality has an impact on our health?

The answers to these questions have been hard to pin down, partly because diets are so difficult to measure well. Participants of the Fenland Study

know this, not the least because you experienced this first hand when you filled out the dietary questionnaires about your habitual eating.

We went a step further to combine the information from the subjective reports of dietary intakes with blood markers. Thanks to the new technology of metabolomics, we were able to measure metabolite biomarkers in the stored blood samples from the Fenland study.

These metabolites represent small components from the breakdown of food and also from processes in the body such as from activities in our body fat or muscle tissue. These blood components can tell us about biological pathways that link the foods we consume with our health.

We specifically set out to find small blood metabolites that were be associated with consuming a Mediterranean-type diet that is considered one of the most high quality diets, known to be protective for heart disease and other chronic diseases.

We found that 66 different small blood biomarkers were related to high consumption of a Mediterranean diet pattern. Some of the subclasses of these blood components were related to the Mediterranean diet itself and others to blood fats such as cholesterol, or markers of risk of diabetes such as insulin levels that are related to consuming this type of diet.

This is an exciting finding as this opens up the possibility to better understand the biological pathways between diet and health and also to identify objective markers of food consumption that can help to overcome the challenges of the subjective methods which rely solely on people recalling what foods and drinks they consumed.

We have been further extending this knowledge by investigating objective markers for consuming dairy products, meat or plant based diets and other types of diet, using the valuable data collected in the Fenland Study.

Fenland Study webinar

In March 2022 we held a virtual meeting for Fenland Covid 19 study participants to talk about the results of the study and their implications for our understanding of the pandemic and remote engagement with study participants in the future.



If you missed the webinar or would like to watch it again you can view it on our website.

Opportunity to join the Fenland Study Participant Panel

We are recruiting members to the ongoing Fenland Study Participant Panel. The main role of the group is to provide a public perspective on all aspects of the research in the Fenland Study. We are particularly interested in hearing opinions from participants about topics such as:

- The scientific focus of the Fenland Study
- Use of the existing data in the Fenland Study to maximise scientific outputs
- Possible future new phases of the Fenland Study
- Sub-studies being conducted or planned in the Fenland Study
- Record linkage to health data
- Use of data and patient confidentiality
- The dissemination of results

No prior experience or formal requirements are necessary to be a member of this group, just a keen interest in the research that you have contributed to and a willingness to help us shape future plans.

If you would like any further information to help you decide whether you would like to be involved in this group, or to register your interest in being a member, please contact Richard Salisbury and Hannah Pettet (Fenland Study Coordinators) via email fenlandcoordinators@mrc-epid.cam.ac.uk or contact us by phone at 0800 085 6183.

How can we contact you?

In future we plan to provide more regular newsletters and have more correspondence by email. Please let us know if your email address has changed or is about to change by filling in this secure form.

How to contact us

Tel: 0800 085 6183 (Monday – Friday, 9:00am – 4:00pm)
Email: fenlandstudy@mrc-epid.cam.ac.uk
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Privacy Notice: Download Fenland Study privacy notice (PDF).

If you no longer wish to receive these newsletter updates, please email us on the above email address. This will not prevent you from receiving any direct communication about your participation in the study.