

Participant Information Sheet

Title of Project: National Health Snapshot: Assessing Health Risks of Freshwater Recreation in the United Kingdom

Researcher names: Elitsa Penkova, Dr Anne Leonard, Prof William Gaze, Prof Ruth Garside, Dr Andrew Singer, Dr Nicola Elviss

Invitation and brief summary:

We would like to invite you to take part in a research project about the health of people who engage in recreational activities in natural freshwaters (such as rivers or lakes). The aim is to evaluate the prevalence of illnesses (such as stomach issues, skin conditions, ear or eye infections) among people that have recently been in contact with these waters and compare it to people who do not go into the water.

Importantly, we want to understand whether these experiences differ between people who regularly (more than three times a month) take part in freshwater activities and those who do not. So, if you enjoy a dip in your local river or prefer to stay dry, we want to hear from you!

Participating in this study is entirely voluntary and involves answering a questionnaire. We will ask if you have visited a natural freshwater environment in the past two weeks, the activities you undertook, your diet, and if you have felt unwell recently. Some personal information, such as age, sex, socio-economic status indicators and pre-existing medical conditions will also be collected, but all data will be anonymised.

Please take time to review this information sheet thoroughly and discuss it with friends or family if you wish. If you have any further questions, please contact Elitsa Penkova (egp203@exeter.ac.uk).

Purpose of the research:

Since the beginning of the Covid-19 pandemic, more and more people in the UK are taking up outdoor, or 'wild' swimming in natural freshwater environments, such as rivers. These environments can be affected by pollution from various sources, such as local wastewater treatment works and agricultural activities. However, the current scale of public exposure and its potential impact on people's health is unclear.

Previous studies have shown a link between participating in recreational activities in coastal waters and a higher risk of experiencing symptoms of infection compared to people who do not go into the water. Examples of the symptoms associated with swimming in natural waters include stomach complaints, skin conditions, ear and eye complaints. These illnesses are often mild and typically do not require treatment.

However, this means that they tend to be under-reported. Furthermore, these risks have not been assessed for people engaging in freshwater recreational activities within the UK. While there have been reports of people falling ill after swimming in rivers, the evidence of water exposure being the cause is not clear. By comparing the rates of illness in people who have been swimming to people who have not, we can gain a better understanding of the health impacts associated with water pollution.

Why have I been approached?

As a member of the public, we are interested in the extent of your contact with environments like rivers, lakes and quarries, and your health. We are looking for individuals who **have** and those who **have not** participated in recreational activities in these environments. We need a minimum of 435 participants in each group. To be eligible to participate, you must meet the following criteria:

- ✓ You must be 16 years old or older
- ✓ You must reside within the UK
- ✓ You have not participated in any water-based activities outside the UK in the past 30 days

What would taking part involve?

If you choose to participate in this research, you will be invited to complete an online questionnaire. We will ask about your health and if you have made any visits to recreational freshwater bodies, such as rivers and lakes, within the UK in the past two weeks. In addition, we will also ask about your recent travel history, your diet, your household and your occupation. This information will help us understand your overall risk of experiencing certain health outcomes.

The questionnaire will be released during the bathing seasons in (May-September) 2024 and 2025. You are welcome to complete the survey more than once, although, if you only take part once the information you provide will still be valuable. Your input will inform our understanding of the association between exposure to freshwater bodies and health.

How long will the questionnaire take?

The questionnaire should take around 10 minutes to complete on each occasion.

Can you change your mind and withdraw from this project?

Before submitting your responses: if you wish to withdraw from participation you can do so by closing your browser window. If you do not complete the questionnaire we will assume you no longer wish your data to be used in this study.

Withdraw after submitting your responses: if you decide to withdraw after submitting your responses, you can do so by contacting Elitsa Penkova (egp203@exeter.ac.uk), who can delete your data. Your privacy and autonomy are of utmost importance and we respect your right to change your mind regarding your involvement in this research study. However, it will not be possible to withdraw your data once we have started analysing the data.

Withdraw after the findings of this study are published: once our findings are published, we will not be able to remove your individual answers from our analysis. However, please be assured that no personally identifiable information will be made publicly available.

What information are we collecting and how will we use it?

The questionnaire will include questions about any visits you have made to recreational freshwaters (e.g. rivers, lakes, and quarries) in the past two weeks, as well as the activities you engaged in during those visits. We will also ask about your general health, dietary habits, occupational hazards and any recent instances of feeling unwell. We will also collect some personal information, such as age, ethnicity, and indicators of socio-economic status.

Finally, towards the end of the questionnaire, we will ask you to provide a valid email address. This information will be used for the following two purposes only:

1) To identify participants who respond to the survey multiple times. This will allow us to analyse any changes over time.

2) To identify participants who wish to withdraw from the study after submitting their responses.

Your email address will only be available to Elitsa Penkova & Anne Leonard and will not be shared with anyone else. This information will be stored separately from the rest of your survey responses, and will not appear in any reports or publications. Once responses have been anonymised and data analysis begins, email addresses will be permanently deleted.

The study findings will be compiled into a final report and submitted for publication in an open-access peer-reviewed journal.

What are the possible benefits of taking part?

The findings from this study will serve to inform the public on the risks of illness associated with freshwater activities.

What are the possible disadvantages and risks of taking part?

There are no identified disadvantages or risks of taking part.

What will happen if I don't want to carry on with the study?

You are free to stop your participation from this study without having to give a reason. If you wish to withdraw your answers after already having submitted them, please contact Elitsa Penkova (egp203@exeter.ac.uk) or the research team using the contact details provided below and we will remove your data from the study. However, once data processing has begun, we will not be able to remove your individual answers from our analysis. However, please be assured that no personally identifiable information will be made publicly available.

How will my information be kept confidential?

The University of Exeter processes personal data for the purposes of carrying out research in the public interest. The University will endeavour to be transparent about its processing of your personal data and this information sheet should provide a clear explanation of this. If you do have any queries about the University's processing of your personal data that cannot be resolved by the research team, further information may be obtained from the University's Data Protection Officer by emailing informationgovernance@exeter.ac.uk or at <http://www.exeter.ac.uk/ig/>.

We will keep all information about you safe and secure and we will strictly adhere to all Data Protection requirements to ensure full confidentiality of your information. Email addresses will be stored separately from the rest of the data you submit, and will only be used to identify people who respond to the survey on more than one occasion, or to delete your data if you wish to withdraw. Email addresses will only be accessible to Elitsa Penkova and Anne Leonard and will not be used to contact you or for any other purposes.

Anonymised data will be securely stored for a period of 5 years after this project has been completed.

Medical concerns

If you have been unwell for more than a week or have any health concerns following participation in this study, we advise that you seek the advice of your GP.

Will I receive any payment for taking part?

There is no payment for participating in this study.

What will happen to the results of this study?

The findings of this study will be compiled into a final report and submitted for publication to an open-access peer-reviewed journal. Upon completion, participants will have the option to request a summary of the findings from the research team or visit the project [webpage](#) where these will be made available along with a link to the full report, when published.

In addition, we will further aim to disseminate these findings through conferences, meetings with community groups, and the media. Results will be presented in such a way that no one will be able to tell that you took part in the study.

Who is organising and funding this study?

This project is funded by the Natural Environment Research Council (NERC GW4+) and the UK Health Security Agency and is organised by researchers at the University of Exeter, UK Health Security Agency, and the UK Centre for Ecology and Hydrology.

Who has reviewed this study?

This project has been reviewed and approved by the University of Exeter Medical School and Health Care Practitioner Research Ethics Committee (Reference ID 2842506)

Contact for any questions or requests regarding your participation in this research

In the event of queries or requests you may contact the research team using the following contact information.

Elitsa Penkova: egp203@exeter.ac.uk

Anne Leonard: Anne.Leonard@exeter.ac.uk

Ruth Garside: R.Garside@exeter.ac.uk

William Gaze: W.h.Gaze@exeter.ac.uk

To contact the Research Ethics Committee, please email: uemsethics@exeter.ac.uk

You can also contact the University Research Ethics and Governance Team if you wish to make a complaint or comment: cgr-reg@exeter.ac.uk, or

Dr Antony Walsh

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Thank you for your interest in this project!