

# The physiological bases and perceptual consequences of “hidden” noise-induced hearing loss

## Participant Information Sheet

You are invited to take part in a research study, in which we will investigate your ability to perceive and discriminate sounds through a range of different tasks. We are specifically interested in whether exposure to noise in our social lives, such as attending clubs/concerts and listening to music through earphones affects hearing in a manner not typically detected by standard testing.

Before you decide whether you would like to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully 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.

### Who will conduct the research?

Garreth Prendergast and Chris Plack, based at The University of Manchester, Oxford Road, Manchester M13 9PL

### What is the aim of the research?

We aim to discover whether constant exposure to loud noises can lead to changes in hearing that occur before hearing damage is detected using traditional hearing tests. The information from this study will be used to help find ways to detect early hearing damage caused by prolonged noise exposure and to revise guidelines on what is considered to be an acceptable amount of noise exposure over a given period of time.

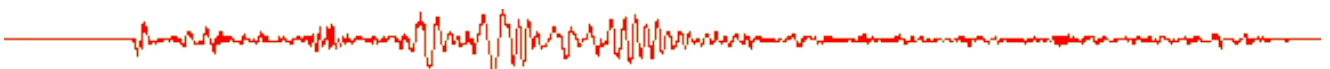
### What will I be asked to do?

In session 1 you will be asked to fill in some short questionnaires and then to complete a series of short listening tests. This will take 2.5 hours. You may be asked to take part in a further 2 testing sessions; one of which will involve completing a series of different listening tests. You will be asked to concentrate on the listening tasks for periods of around 25 minutes between which breaks will be provided. For the third session, you will be asked to listen to sounds in a darkened room whilst electrical brain activity is recorded using sensors placed on your scalp. For the electrical recording, tube-insert earphones are used. The end of this is a foam eartip coated in gold foil and is placed in the ear canal of the listener. The eartip is put in place by the researcher.

None of the tests are in any way painful, harmful or unpleasant. Each session will be completed on different days and the total duration is 6.5 hours. Session 1 will be ended early if your hearing is found not to be suitable for the study.

### How is confidentiality maintained?

All information collected about you during the course of the research will be kept strictly confidential. All personal details will be stored securely at the University of Manchester, either in a password-protected file on a University computer, or in a locked filing cabinet. The results of the study will be anonymised before publication so that it is not possible to identify individual participants. None of the individual test results will be shared with your employer. Your anonymised data may be shared with other researchers conducting similar research, but under no circumstances will any of your personal data be made available.



### **What do I need to do before the first session?**

Once the first session is arranged, it is requested that you avoid noisy environments (i.e. nightclubs and live music events) for the 24 hours before the study. If you have had an ear infection in the last 6 weeks, or you get one before an arranged session, you should contact the principal investigator to arrange an alternative time.

### **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 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.

### **Will I be paid for participating in the research?**

You will be paid £7 per hour for your participation, plus an additional payment of £15 if you complete all 6 hours of testing.

### **What is the total duration of the research?**

Approximately 2 hours for the first stage and 6 hours in total if you are asked to return for the final 2 sessions of testing. Each session is 2 hours in duration and will be completed on different days.

### **Where will the research be conducted?**

In the Ellen Wilkinson building at the University of Manchester, Oxford Road, Manchester, M13 9PL.

### **Will the outcomes of the research be published?**

The research will be reported in one or more peer reviewed journal publications and results will be presented at one or more scientific conferences.

### **Contact for further information**

If you require further information, you should contact Dr Garreth Prendergast (telephone number: 0161 275 8561 / email: [garreth.prendergast@manchester.ac.uk](mailto:garreth.prendergast@manchester.ac.uk)).

### **What if something goes wrong?**

If you would like to make a formal complaint about the conduct of the research you should contact the Head of the Research Office, Christie Building, University of Manchester, Oxford Road, Manchester, M13 9PL.

This project has been approved by the University Research Ethics Committee (project no. 98).

