



# Participants Needed!

## The Predictive Basis of Intensity and Loudness Processing in Tinnitus

This study aims both to reveal key brain mechanisms of tinnitus, and lead to the development of a biomarker of tinnitus that can be used in the development and testing of new tinnitus treatments.

Email [k.yukhnovich@ucl.ac.uk](mailto:k.yukhnovich@ucl.ac.uk) with your name, email address and contact number to take part.



# About the study

## What can you expect?

You will be required to:

- Complete some quick standard questionnaires about general mood and wellbeing (if not completed online)
- Have a hearing test (pure tone audiogram);
- Complete a computerised task to determine a comfortable loudness of the beeps to be used in the main MEG experiment
- Have a magnetoencephalography (MEG) scanning session. As the experiments measure automatic responses to the sounds, you will be able to watch a subtitled movie of your choice on Netflix.

## Brain Imaging

MEG measures magnetic fields produced outside your head naturally as neurons fire. It is silent, painless and safe. Before scanning, you will be shown exactly what you have to do and given time to practice.

The most important things you need to do during the MEG scanning session are to stay awake, keep your eyes open, don't move your head and keep your face, neck, and body in a relaxed state.

Because the device measures small magnetic fields you will be asked not to wear metallic items (clothing with zips, metal buttons etc) on the day of your scan.

Once you have removed any metal you are wearing or carrying, you will be asked to sit or lie down with your head inside the scanner for up to 60 minutes whilst sounds are played to you through headphones. The researcher will be able to talk to you between scans while you are inside the scanner.

## Reimbursement

You will receive £30 as a thank you for your time and reasonable travel expenses reimbursed.

# About the study

## Who can take part?

We're looking for volunteers who fit the following criteria:

- Do NOT have tinnitus (persistent sound heard in one or both ears that is not coming from an external sound source or actual sounds being generated inside your body such as turbulent blood flow)
- Are aged 18 or over
- Are able to sit still and comfortably in a comfortable chair for around 60 mins at a time.

You will be unable to participate if you have:

- Tinnitus
- Any abnormality of brain structure (e.g. stroke, tumour), or other neurological disorder (e.g. multiple sclerosis or epilepsy)
- The ongoing use of sedating medications, or certain other nerve-acting medications
- A current mental health condition of sufficient severity to prevent certain activities of everyday life
- Implanted medical devices (including pacemakers, cochlear implants, heart valves, aneurysm clips or coronary stents)
- Dental wires (Braces) or other metal-containing dental work other than ordinary fillings

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