Lancaster University

UK Research and Innovation

HELP MAKE HEARING TECHNOLOGY WORK EVEN BETTER FOR CHILDREN!

We're inviting children aged 6-11 with mild-to-moderate hearing loss to take part in a fun research study. We are also asking hearing children to take part. This helps us understand what is the same for all children and what might be different for children with hearing loss.

With your help, we want to learn more about how deaf kids like you hear, listen, and learn with the help of hearing aids and other cool technology - like remote microphones.

You'll visit your local audiologist a few times, just like you've done before, and come to Lancaster University for some fun activities that include listening games, memory puzzles, and exciting challenges.



Ready to find out more?

DID YOU KNOW?

Did you know that deaf kids like you, with mild-to-moderate hearing loss, are the most common group of kids who have trouble hearing?

But here's the catch! There is still not much information about how hearing aids or special technology can really help you. Most hearing devices are designed for adults, and that's where this study comes in.

We need your help to figure out what kids, ages 6-11, really need to hear better and reach their full potential.

With your help, we can create hearing devices and tools that are just right for you and other kids.



DO I HAVE TO TAKE PART?

No, you don’t have to take part if you don’t want to! It’s completely up to you and your parent or guardian to decide.

If you do choose to join, you can stop at any time, and that’s totally okay.

WHY ARE WE DOING THIS RESEARCH?

This research is all about understanding how hearing aids and other technology can help deaf kids hear better, communicate more clearly, and learn without struggle.

It can help make sure deaf kids get the best support they need in school and everyday life.

WILL MY INFORMATION BE KEPT PRIVATE

GDPR is a law that helps keep your personal information safe. In this study, we will use some information about you, like from your doctor, but only what we need.

Very few people will see your name, and everyone will keep it safe.

After the study, we might keep some information to check things or help with future research, but nobody will know it's about you.

SCAN ME!

Scan the QR code to watch a short video that explains GDPR.

WHAT WILL I BE ASKED TO DO?

As part of the study, you'll get to try a brand-new hearing aid called Oticon Play SI Some kids will also get to try out an extra piece of technology called the EduMic.

You might get the EduMic, or you might not - it's a surprise for now, even for us!

This is part of a special NHS-approved study where no one knows who gets which device at first, to help us understand what works best.

You'll use the hearing aid just like your own for about a year for as long as possible each day, and after that, you'll be able to choose whether to keep the new device or go back to your old one.

Hearing Aids

You will get a set of Oticon Play SI designed to help you understand sounds more clearly, so it's easier to hear what's important.





EduMic

EduMic is a small microphone that your teacher or grown-up can wear to help you hear even better in noisy places, like the classroom.

WHAT WILL I BE ASKED TO DO?

If you decide to join the study, here's what will happen during each visit and what you'll be doing. The visits will happen over a year, and we'll explain what each one will look like and how much time it will take.

You will be invited to visit the Infant and Child Development Lab at Lancaster University three times over the next year.

These visits will take up most of your day, similar to a school day, but there will be plenty of breaks, fun activities, and games to keep things exciting!

If you prefer, visits 1 and 3 can be split into shorter (half-day) visits.

Want to see where you'll be going?

Check out the video below to meet the team and get a sneak peek of the lab!

Scan the QR code to watch.

Scan Me!

You will also see your local audiologist four times during the year to check your hearing, get your new hearing aids, and make sure everything is working well.



USING MICROPHONES AND CAMERAS IN OUR ACTIVITIES





Microphones

For some of the games and activities, we use microphones to help us remember what you say in the games.

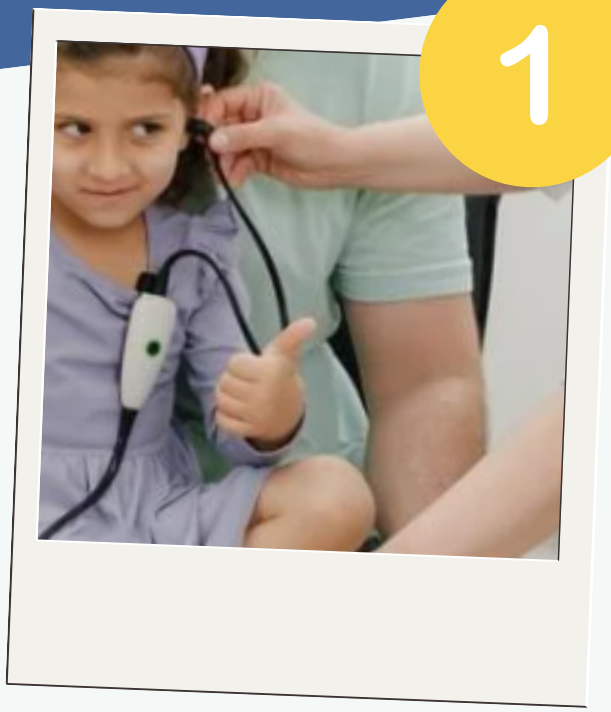
Cameras

For some of the games and activities, we use video to see what happens during the tasks and to help keep everyone safe.

WHY DO WE DO THIS?

These recordings help us look back later to make sure we didn't miss anything important you said or did. We will let you know for each activity if your voice or video is being recorded.

WHAT WILL HAPPEN DURING EACH VISIT?



1

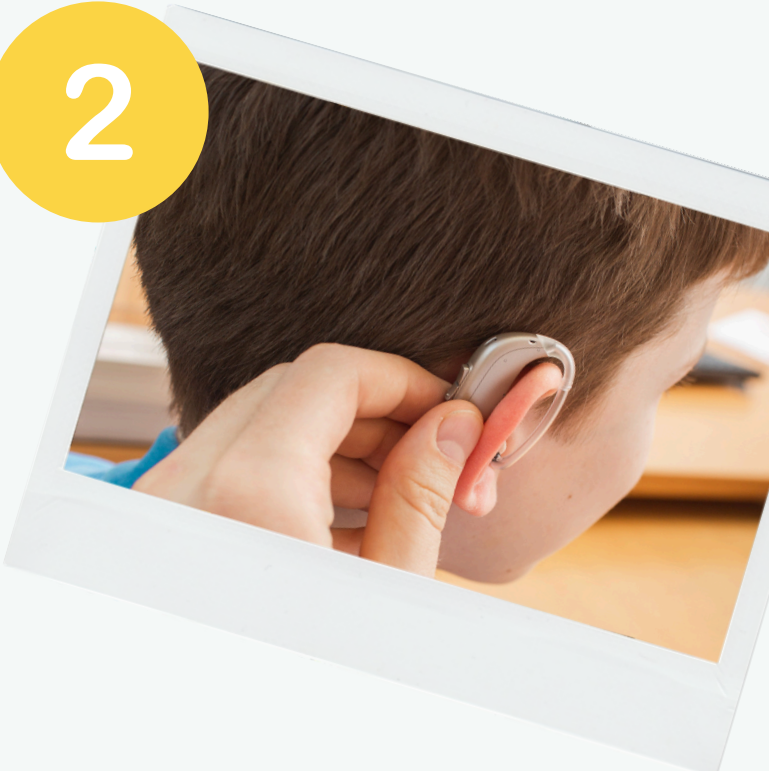
Hospital Visit (1 hour)

This first visit is at your local audiology clinic. You might have been here before! Your audiologist will check how well you hear by looking inside your ears, checking how your eardrum moves, and doing a quick hearing test. You will also get some ear moulds made so your new hearing devices fit perfectly.

2

Hospital Visit (1 hour)

About 3 weeks after your first visit, you'll come back to the audiology clinic to get your new hearing devices fitted. The audiologist will show you how to wear and care for them, and if needed, explain how to use any extra equipment like a remote microphone. You'll get a chance to try them out for the first time!



OUR METHODS EXPLAINED



Virtual Reality (VR)

Virtual reality is like a game where you wear special glasses and feel like you're in a whole new world. It's fun and helps you explore and play!

Electroencephalogram (EEG)

An EEG uses small sensors on your head to listen to your brain's signals. It doesn't hurt and helps us learn how your brain works when you hear things.



3 Lancaster University Visit (6-7 hours)

or two shorter half-day visits



Shortly after getting your hearing devices, you'll come to Lancaster University for your first visit!

You'll try out virtual reality, play listening and memory games, and do a little bit of reading and maths.

To see how your brain reacts to sound, we will use EEG. It looks like a swimming cap but we can see your brain activity with it!
It will be a longer visit, kind of like a school day but there will be frequent breaks and we have heaps of board games & arts/crafts.

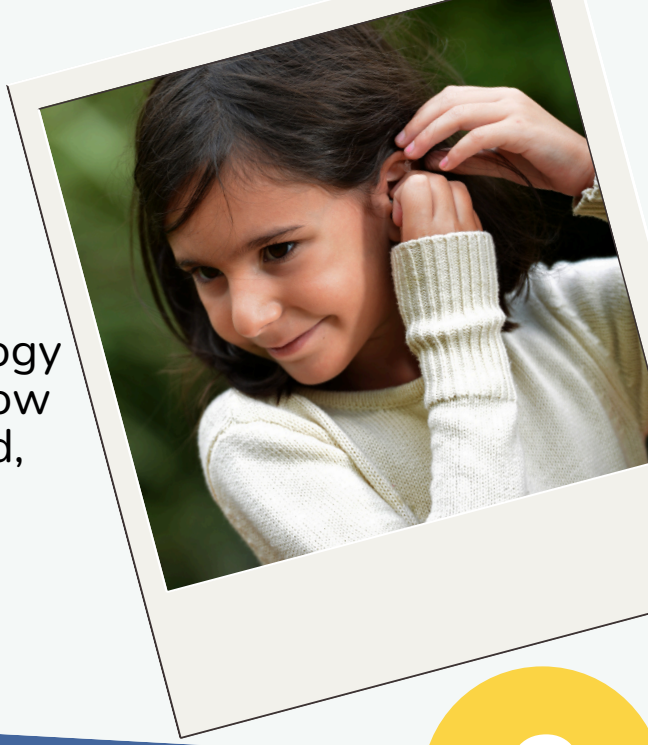


4 Lancaster University Visit (3-4 hours)



A couple of weeks after your first visit to Lancaster, you'll come back for a second visit. You'll repeat some of the activities you did before, like the listening games, brain tests, and virtual reality but some of the educational challenges might will be different - but just as fun.

5 Audiologist Visit (1 hour)



Three months after you get your hearing devices, you'll go back to your local audiology clinic for a check-up. This visit will check how your hearing devices are working. If needed, your audiologist will make adjustments to make sure you're hearing as clearly as possible.

6 Lancaster University Visit (6-7 hours)

or two shorter half-day visits



About a year after your first visit to Lancaster University, you'll come back for one last visit. This time, you'll do the same kinds of activities as before, like the listening and brain games, as well as the EEG and virtual reality tasks. You'll also fill out more questionnaires during this visit.

7 Audiologist Visit (1 hour)



Your last visit will be back at the audiology clinic. You'll have the chance to decide if you want to keep the new hearing devices or go back to your old ones.

We'll also give you more information about the study and let you know which group your child has been assigned to.

WILL THE STUDY HELP ME?

Taking part might not help you right away, but it will help us learn more about how hearing technology can support children like you to do their best as they grow. You'll be helping lots of other deaf kids in the future!

WILL ANYTHING ABOUT THE RESEARCH UPSET ME?

Everything we do is safe. You might feel a bit tired from travelling or doing activities, and the VR headset or EEG cap might feel a little funny at first but we'll take breaks, make sure you're comfy, and stop if anything doesn't feel right. It might also take a little time to get used to your new hearing aids, and that's completely okay!





WHEN WILL THE STUDY BEGIN AND FINISH?



The study will start as soon as you and your family have all the information you need and you get your first appointment at the audiology clinic.

With your parents' help, you'll visit your audiologist and Lancaster University over the year. The whole study will last about one year from your first appointment.

HOW CAN I ASK QUESTIONS OR STOP IF I CHANGE MY MIND?

If you have any questions or change your mind about taking part, just tell your parent or a researcher. You can also contact the research team at Lancaster University:



Dr Brandon O'Hanlon Dr Katharina Kaduk Dr Hannah J. Stewar

01524 524479

icat@lancaster.ac.uk