

RESEARCH PROJECT INFORMATION SHEET

- Project Title:** The effects of transcranial direct current stimulation on social cognition.
- Lay Title:** How electrical brain stimulation affects social cognition in healthy adults over 55 years.
- Chief Investigator:** A/Prof. Marcus Meinzer, Centre for Clinical Research (CCR),
The University of Queensland (UQ)
- Co-Investigators:** Dr. Andrew Martin – UQCCR
Ms Islay Davies - UQ
Ms Jasmine Huang - UQ

Project Aim: This study is interested in finding out what happens in the brain when people engage in activities that require them to perceive another person's perspective or emotional state. The aim of this research is to find out how a non-invasive electrical brain stimulation technique known as transcranial Direct Current Stimulation (tDCS) affects a person's ability to perceive the perspective and emotions of other people. We hope that this will help to shed further light on the underlying brain regions associated with social cognition.

What will I have to do if I agree to participate?

1. One of our researchers will help you complete a medical checklist to make sure it is safe for you to participate in the study. The researchers may ask you or one of your relatives or treating health care professionals (e.g., your general practitioner) about medical information to confirm that it is safe for you to have brain stimulation.
2. You will do some general thinking and learning tests. These tests involve tasks such as repeating words and naming objects.
3. You will complete two separate testing sessions over two separate days. During each learning session you will be administered either transcranial Direct Current Stimulation (tDCS) or placebo stimulation.

Transcranial Direct Current Stimulation (tDCS): tDCS is a safe, non-invasive brain stimulation technique. Two electrodes will be attached to your head with an elastic band. You will be randomly assigned to one of two stimulation types: 1) During which stimulation will not be applied ("sham"); 2) During which we will apply a weak electrical current for about 20 minutes. You will not be able to tell if the stimulation is turned on or not. We will tell you at the end of the study. Electrical brain stimulation is a safe procedure. You may feel a mild tingling or itching when the machine is turned on. Some participants also experience headache or a mild burning sensation. At any time, the experimenters can safely discontinue the stimulation at your request.



Benefits: Doing the study may or may not improve social cognition. The major benefit will be in increasing knowledge of how electrical brain stimulation affects social cognition. You will receive \$50 as reimbursement for your time and travel for the entire duration of the study.

Duration: This study will consist of the following: The completion of two experimental test sessions while you receive either real or placebo brain stimulation. Each test session involves a series of computerised cognitive tasks measuring how you perceive other people's perspective and emotions. Participation in the research will take a total of up to 3-4 hours over a period of 2 days.

Where: The research will be conducted at the UQ Centre for Clinical Research (UQCCR; which is at the Royal Brisbane & Women's Hospital).

Your privacy and confidentiality will be maintained at all times. Your information will be stored safely and securely in a locked filing cabinet at the UQCCR. Your medical information will only be seen by researchers working on the study. Test results will not be published in a way that could reveal your identity. You can contact the researchers if you would like results from the research tasks.

This study is completely voluntary and you are free to withdraw at any time. Withdrawing would not affect the quality of your relations with staff at the University of Queensland.

If you have any further questions about this study we are happy to give you more information. For further queries about this research please contact Assoc/Prof Marcus Meinzer at m.meinzer@uq.edu.au or phone 07 3346 6001.

This study adheres to the Guidelines of the ethical review process of The University of Queensland and the National Statement on Ethical Conduct in Human Research. Whilst you are free to discuss your participation in this study with project staff (e.g., Assoc/Prof Marcus Meinzer), if you would like to speak to an officer of the University not involved in the study, you may contact the Ethics Coordinator on 07 3365 3924.

Thank you for your interest in this research project.

If you would like to participate, please complete and return the attached response form.



Assoc/Prof Marcus Meinzer
Centre for Clinical Research, The University of Queensland
