

SCHIZOPHRENIA Factsheet

What is transcranial direct-current stimulation (tDCS)?

tDCS is a non-invasive form of brain stimulation similar to transcranial magnetic stimulation, but instead of using magnets, it uses a low-intensity, constant current applied through scalp electrodes. Generally, anodal stimulation induces an increase of cortical excitability, whereas cathodal stimulation decreases cortical excitability, with effects that last beyond the stimulation period. Dose involves current intensity, duration of stimulation and size of electrodes. While most people with schizophrenia respond adequately to antipsychotic medication, some find it is not completely effective for all of their symptoms. tDCS is currently being investigated as an additional treatment for these people.

What is the evidence for tDCS?

Moderate to low quality evidence finds a large effect of greater improvement in auditory hallucinations with tDCS given twice-daily or over 10 sessions. Over 10 sessions may also improve negative symptoms.

Moderate quality evidence finds a medium-sized effect of greater improvement in working memory, but not other cognitive domains, with prefrontal tDCS.

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NeuRA (Neuroscience Research Australia) is one of the largest independent medical and clinical research institutes in Australia and an international leader in neurological research.

Diseases of the brain and nervous system pose the greatest health, economic and social burden of any disease group because they are chronic, debilitating and have no known cures.

Medical research is the cornerstone of efforts to advance the health and wellbeing of families and the community. Our dedicated scientists are focussed on transforming their research into significant and practical benefits for all patients.

While we hope you find this information useful, it is always important to discuss any questions about schizophrenia or its treatment with your doctor or other health care provider.

For more information see the technical table

HOW YOUR SUPPORT HELPS

We are able to make significant advances due to the generosity of countless people. Your donation allows us to continue to work towards transforming lives. For information on how you can support our research, phone **1300 888 019** or make a secure donation at **neura.edu.au/donate/schizophrenia**.

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