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SCHIZOPHRENIA Factsheet

October 2020

What are default mode networks?

The 'default mode' system refers to a network of regions including the precuneus, posterior cingulate cortex, medial prefrontal cortex, and medial, lateral and inferior parietal cortices, that appear to be active in the resting brain, and consistently show attenuations of activity following onset of a task-related activity. Default mode network (DMN) attenuation is not task specific; however the magnitude of reduction is dependent on the cognitive load and task requirements. The more demanding the task being performed, the stronger the deactivation. DMN activity is characterised by coherent low frequency (less than 0.1 Hz) neural oscillations. The functional connectivity of DMN regions is determined through the temporal correlation of blood oxygen level dependent activity in discrete anatomical regions. A 'task-positive' network of regions including the dorsolateral prefrontal cortex, inferior parietal cortex and supplementary motor area has been identified that is strongly anti-correlated with DMN activity. The DMN is thought to facilitate adaptive functioning, working memory, and processing emotionally salient stimuli.

What is the evidence for default mode networks?

Moderate to low quality evidence is unclear of alterations in functional activity in schizophrenia in default mode networks when the brain is at rest or during stimulus or task performance.

For more information see the technical table



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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.

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.