



NeuRA

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BIPOLAR DISORDERS LIBRARY

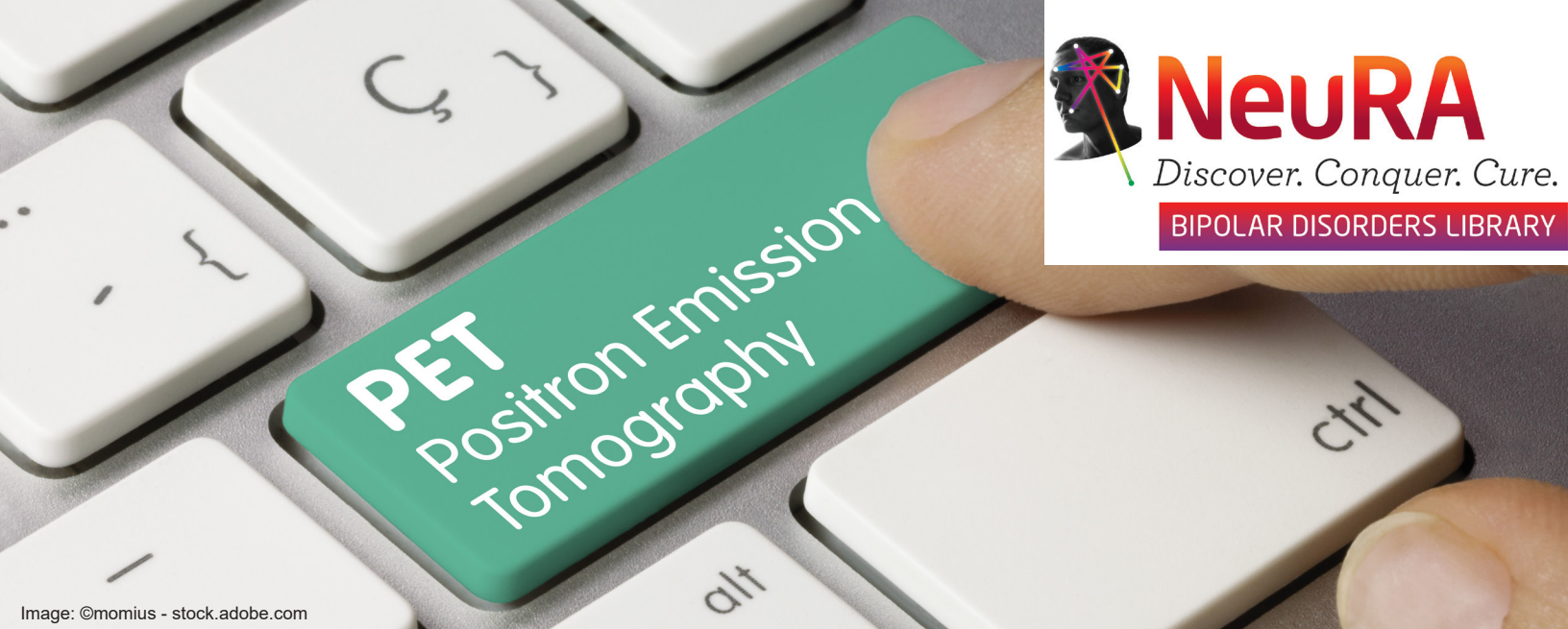


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BIPOLAR DISORDERS Factsheet

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What is positron emission tomography (PET) and single-photon emission computed tomography (SPECT)?

PET and SPECT are nuclear-based imaging techniques that utilise radioactive tracers to visualise functional brain activity. The radioisotopes tracers are coupled with a biological molecule such as glucose, which is used during cellular metabolism and can be used to highlight areas with changes in metabolic activity. While SPECT offers more limited spatial and temporal resolution than PET, it is less expensive as it does not require a cyclotron in close proximity.

What is the evidence for PET and SPECT anomalies in people with bipolar disorder?

Moderate to low quality evidence finds increased cerebral glucose metabolism in bipolar disorder in the right precentral gyrus, right supplementary motor area, right rolandic operculum, left anterior cingulate / paracingulate gyri and the left optic radiations. There was decreased cerebral glucose metabolism in bipolar disorder in the middle cerebellar peduncles, left superior temporal gyrus, and left middle temporal gyrus.

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 bipolar disorder 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.

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