



NeuRA

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BIPOLAR DISORDERS Factsheet

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What is homocysteine?

Homocysteine is a sulphur-containing amino acid that is derived from the diet. As folate is needed to metabolise homocysteine, and vitamin B12 helps keep homocysteine levels low, people who are deficient in these vitamins may have increased levels of homocysteine. Homocysteine is involved in a large number of processes in the central nervous system, including alteration in glutamatergic neurotransmission which has been implicated in many psychiatric disorders. Increased homocysteine can also promote vasculotoxic effects which contribute to a range of medical disorders, including cardiovascular disease; a common comorbid condition in people with bipolar disorder.

What is the evidence for changes in homocysteine in people with bipolar disorder?

High quality evidence suggests a large effect of increased homocysteine in people with bipolar disorder during a mania phase, and a small effect during euthymia when compared to controls without bipolar disorder. The effect during euthymia was not influenced by patients' age or sex, and there were insufficient studies to assess the effect of age or sex during mania.

Only one study assessed homocysteine levels during bipolar depression, and found no differences with controls.

For more information see the technical table



NeuRA

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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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