



NeuRA

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BIPOLAR DISORDERS Factsheet

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What are brain cells?

Neurons send and receive information via electrical and chemical processes in the brain. Interneurons are a subset of neurons that are involved in the processing and modulation of information. Glial cells are brain cells that play a role in neurodevelopment, neurotransmission, connectivity, brain metabolism, and the clearance of extracellular ions and neurotransmitters. Astrocytes are the most prevalent glial cell and are primarily involved in neurodevelopment. They also regulate synaptic transmission, mediate glutamate reuptake, and aid in the maintenance of the blood-brain barrier. Oligodendrocytes are glial cells that produce myelin that is used for electrical insulation of nerve axons to ensure rapid impulse conduction. Microglia are glial immune cells that are important for the initiation and control of inflammation in the central nervous system.

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

Moderate to low quality evidence found no consistent changes in the number, density, or size of neurons, interneurons, or glial cells in people with bipolar disorder compared to people without bipolar disorder.

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.