

# Lithium protects against suicide

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Suicidal behaviour decreases among individuals with bipolar disorder during periods of lithium medication, according to an extensive register-based study conducted at Karolinska Institutet in Sweden. The results are published in the *American Journal of Psychiatry*.

More than one percent of the world's population is affected by bipolar disorder. The disease is characterised by alternating periods of depression and elevated mood (mania). Medication with [lithium](#) and valproate prevents manic phases and has mood-stabilizing effects. It is known that people with bipolar disorder have a high risk of committing [suicide](#), but whether the drugs reduce the risk of suicide has not been sufficiently investigated. Researchers at Karolinska Institutet have, therefore, conducted an extensive register-based study.

## Many suicides could be avoided

"We now strongly augment the existing evidence that [lithium treatment](#) is protective against suicide attempts and suicide", says Professor Paul Lichtenstein at Karolinska Institutet's Department of Medical Epidemiology and Biostatistics. "We estimate that more than ten per cent of attempted or completed suicides could have been avoided if these individuals had been continuously taking lithium during the study period".

The study was performed in collaboration with the University of Gothenburg and included more than 51,000 individuals with [bipolar disorder](#) from the Swedish National Patient Registry over an eight-year

period (2006-2013). During this period, 10,648 suicide-related events occurred. All participants in the study were compared to themselves during periods with and without medication with lithium and valproate, respectively. The risk of suicide-related events was reduced by 14 per cent while individuals were receiving lithium, as compared with the same individuals while not receiving lithium.

## **Lithium medication has decreased steadily**

The study also demonstrates that valproate, the most common alternative to lithium, probably has no effect on suicidal behaviour. Lithium medication has decreased steadily in recent years in Sweden. Paul Lichtenstein believes that the results of the study are of relevance for clinical decisions.

"When a doctor is trying to find the best pharmacological treatment for the patient, the anti-suicidal effect of lithium should be taken into consideration, especially for patients with suspected suicidal intentions", says Paul Lichtenstein.

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**More information:** Jie Song et al. Suicidal Behavior During Lithium and Valproate Treatment: A Within-Individual 8-Year Prospective Study of 50,000 Patients With Bipolar Disorder, *American Journal of Psychiatry* (2017). [DOI: 10.1176/appi.ajp.2017.16050542](https://doi.org/10.1176/appi.ajp.2017.16050542)

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